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## Abstracting Away from Abstract Case

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## **Abstracting Away from Abstract Case\***

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### **1.0 Introduction**

Syntactic licensing of noun phrases and the morphological realization of case have been held to be connected, if more and more tenuously. In this short paper, I demonstrate that even that tenuous connection is not justified, and that questions of NP licensing need to be examined from a new perspective. Further evidence from Icelandic seems to force the conclusion that “structural” nominative (and its corresponding reflex of verbal agreement) must be available in more than one syntactic position, suggesting that the main motivation for movement of NPs high in the clause is a completely separate licensing mechanism. I suggest that the movement is motivated by the Extended Projection Principle – the notion that clauses must have a “subject”.

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## 2.0 Dative-nominative experiencer subject constructions

In the Minimalist framework, the Case Filter is subsumed under a broader requirement that abstract features attached to NPs be “checked” against matching features elsewhere before LF. Case, agreement, and tense features are all checked in this way. If any feature fails to be checked, the derivation will crash. In particular, case features on NPs are checked against similar features on the V head and the T head; V in AgrO for accusative and T in AgrS for nominative. The NPs checking these features do so in the specifiers of the AgrPs. The case that they check there is morphologically realized as nominative or accusative if it is not pre-empted by previously assigned quirky case.

Data from experiencer subject constructions in Icelandic demonstrate that structural nominative can be “checked” in AgrPs other than AgrS, suggesting that the case-assignment mechanisms need to be reworked.

### 2.1 Case in experiencer subject constructions

In many languages, a certain class of predicates triggers unusual case-marking. They have the common feature that the highest theta-role they assign is “experiencer”. The NP that receives this theta-role typically behaves according to a number of syntactic tests as if it was in subject position, yet is morphologically marked dative. The syntactic object is marked nominative and triggers verbal agreement. An Icelandic example is seen in (1):

- (1) Calvini líki verkið  
Calvin-D like the job-N  
“Calvin likes the job”

(Note that this is a common construction cross-linguistically, appearing in Dravidian languages, Japanese, and Russian, among others (see, e.g. Verma and Mohanan (1990), Takezawa (1987), Kondrashova (1994)); here the focus is on Icelandic, but the widespread nature of the phenomenon suggests that it reflects some fairly deep property of language.) I won't repeat the tests for subjecthood of the dative argument here; for Icelandic they can be found in their profusion in Zaenen et al. (1985). We are concerned with the nominative on the object and where it might come from.

### 2.2 Structural nominative

Object nominative in these constructions appears to be structural – that is, a property of the position the NP is in, not the result of special marking by the verb – for several reasons.

- (2) \*Morgum studentum líka verkið  
many students-D like-3.pl the job-N  
“Many students like the job”

In (2) it can be seen that the verb must agree in number with the nominative object, just as is the case with structurally nominative subjects – (2) is bad because the object is singular while the verb has plural agreement on it. Agreement with a non-nominative subject in any case of quirky subject marking is impossible; default agreement shows up. Nominative and agreement are invariably linked in Icelandic.

The crucial test, of course, is whether or not the object nominative is preserved when the NP moves to a position that normally assigns a different structural case – for example, if a passivized experiencer-subject verb were embedded under an ECM verb.

Unfortunately, experiencer-subject constructions cannot be passivized, as there is no agent theta-role assigned. However, in Icelandic, certain ditransitive verbs, if passivized, produce dative-nominative structures that behave in most respects like experiencer-subject constructions. An example appears in (3) – note that the plural agreement is with the nominative object<sup>1</sup>:

- (3) Konungi hafa verið gefnir hestar  
a king-D have-pl been given horses-N  
“A king has been given horses”

As pointed out by Zaenen et al, when this verb is passivized with “horses” as the subject and embedded under an ECM verb, “horses” is marked not with a quirky nominative, but with accusative, as in regular ECM constructions. This is seen in (4):

- (4) Eg taldi hestana hafa verið gefna konungi  
I believe horses-A have been given a king-D  
“I believe horses have been given to a king” (Zaenen et al. (1985))

The fact that the nominative marking is not preserved when the argument moves to a different position demonstrates that it is not quirky, but structural. Quirky case is preserved under movement (5):

- (5) a) Við vitjuðum sjúklinganna  
we-N visited-1pl the-patients-G.pl.m  
“We visited the patients”  
b) Sjúklinganna var vitjað  
the patients-G.pl.m was-dflt visited-supine (Andrews (1990))  
“The patients were visited”

and under ECM, (6):

- (6) Eg taldi sjúklinganna var vitjað  
I believe the patients-G.pl.m was-dflt visited-supine  
“I believe the patients were visited”

In short, quirky case is not a consequence of syntactic position, but of the particular relation between a certain verb and the argument in question. (This is, of course, the major reason for positing the “abstract” vs. “morphological” distinction in the first place.) If the nominative in (3) was the result of such a relation between “horses” and passivized “give,” it should appear no matter where in the sentence “horses” surfaced<sup>2</sup>.

<sup>1</sup>Some verbs, including this one, allow a default singular agreement form with a plural nominative object. Person agreement is never possible with a nominative object. If nominative is assigned in these instances in AgrO, this is consistent with observations of Murasugi (1993), who notes that in languages with multiple agreement, object agreement cannot be more featurally specified than subject agreement.

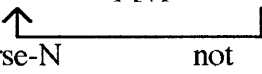
<sup>2</sup>Rögvaldsson (1990) points out that in conjunct phrases with identical objects, the second object can be dropped when marked accusative, no matter what the case of the first object; however, when the second object is quirkily case-marked, it can only be dropped if the first object is identically case-marked. This seems to hold true for nominative objects as well. In this respect, nominative objects pattern with quirky objects rather than structurally case-marked objects; however, as outlined above, the combination of agreement and ECM facts still strongly suggest that nominative is structural in these instances. Some other explanation of the object-drop facts must then be found; perhaps accusative case is “unmarked” in some sense and hence recoverable, while nominative is not.

### 2.3 Nominative in T<sup>0</sup>?

If the object nominative in these constructions has more in common with structural case than quirky case, an account that suggests itself is that these objects are having their case checked in the same place and in the same way as subject nominative. (An analysis along these lines has been proposed by Schutze (1993a)). If that is the case, these objects might be expected to behave in some respects like structural subjects – they would move to Spec-TP or higher, to Spec-AgrS, and check their case against the nominative available on the finite T head. This is attractive in that no revision to the standard case assignment mechanisms need be made. However, it seems to run into serious theoretical problems on a Minimalist approach, and is empirically unmotivated in that nominative objects seem to behave syntactically in every respect like regular objects.

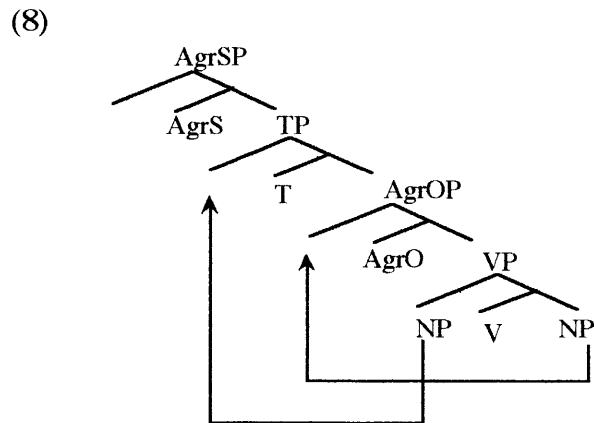
#### 2.3.1 Overt Object Shift

The first argument against the assignment of object nominative in Spec-TP or higher comes from facts of object shift and expletive constructions discussed at length in Jonas and Bobaljik (1993). Icelandic is an overt object shift language, meaning that objects can move to Spec-AgrO before Spell-Out, appearing outside the VP. This is possible not only with regular accusative objects, but with nominative objects in experiencer-subject constructions, as seen in (7):

- (7) a) Morgum stúdentum líkað [VP ekki ... [namskeiðið]]  
 many students-D liked not the course  
 “Many students didn’t like the course”  
 b) Morgum stúdentum líkað [AgrO [namskeiðið] [VP ekki ... t ]]  
 many students-D liked the course-N not
- 
- “Many students didn’t like the course”

The adverbial negation *ekki* is adjoined to the left edge of the VP and is thus a convenient diagnostic for movement out of it.

Jonas and Bobaljik point out that given the Minimalist economy principles of Shortest Move and Equidistance, movement of the object to Spec-AgrO forces movement of the subject to Spec-TP before it can move higher in the clause. The derivation is seen in (8):



Shortest Move and Equidistance combine to force A-moving NPs to skip at most one specifier at a time. If both object and the VP-internal subject are moving to higher

functional projections before Spell-Out, the object skips first the subject in Spec-VP and moves to Spec-AgrO; the subject can then skip Spec-AgrO and move to Spec-TP. (The heads of these XPs are successive-cyclically head-moving upwards while this is happening, expanding the domain for the application of Equidistance). The possibility of overt object shift must thus be correlated with both overt verb raising and the availability of Spec-TP as a landing site cross-linguistically.

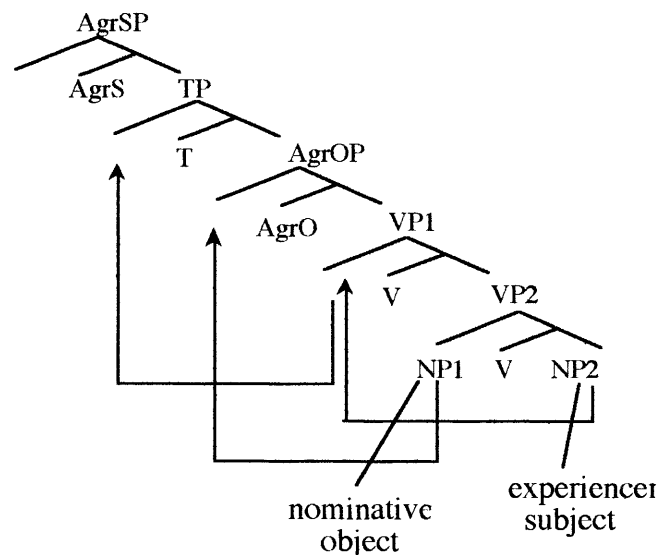
Jonas and Bobaljik show that the subject can remain in Spec-TP at Spell-Out. Icelandic has a construction called the Transitive Expletive Construction (TEC)<sup>3</sup>, in which an indefinite subject can follow the finite verb, while the normal subject position is occupied by an expletive. The subject has moved out of the VP, as is shown by its position left of *ekki*. It has moved to at least the second functional projection beyond V, as J and B show that when a TEC construction is combined with an object-shift construction, the subject appears to the left of the object, which in turn is to the left of VP-adjoined *ekki*. This can be seen in (9):

- (9) tað borðuðu [TP margir strákar [AgrO bjúgun [VP ekki ...]]]  
 there ate many boys-N the sausages-A not  
 “Many boys didn’t eat the sausages” (Jonas and Bobaljik (1993))

Crucially, this identical construction is possible with experiencer subject verbs, as you can see in (10), with movement diagrammed in (11):

- (10) tað líkaði [TP morgum studentum [AgrO tetta namskeið [VP ekki ...]]]  
 there liked many students-D this course-N not  
 “Many students didn’t like this course”

(11)



(Experiencer-subject constructions have many properties in common with unaccusative and other derived-subject verbs, (as shown for Italian by Belletti and Rizzi (1988) and for Icelandic by Sigurðsson (1989)); to capture this pattern I will assume a

<sup>3</sup>These constructions (TEC + OS) are somewhat marginal. There is a definite contrast with constructions where the subject appears after the object and before the adverbial, however. See Jonas and Bobaljik (1993) and references cited therein for discussion.

subjectless ditransitive structure for these constructions, adopting a VP- or PP-shell type analysis along the lines of Larson (1988) or Pesetsky (1992). The movements of the arguments are exactly the same as for standard transitives after the 1st movement of the experiencer subject (NP2) to the specifier of the higher VP. Note that the position of the shifted nominative object, to the left of the matrix VP, mitigates against a Collins-Thráinsson (1993) AgrOP-type approach to this construction.)

The subject, appearing overtly in Spec-TP, must be checking some strong feature there, as must the object in Spec-AgrOP. The subject at LF is assumed to raise to move to adjoin to or substitute for the expletive. Note that this will leave the tail of an A-chain in Spec-TP. If the object were to raise to Spec-TP and check nominative there, it would have to adjoin to or substitute for the trace of the subject's A-chain, which is separately theta- and case-marked. The theory as it stands would predict such tangling of chains to crash the derivation.

### 2.3.2 Negative Polarity Items

The second argument for assuming that the object does not reach higher than Spec-AgrO at LF comes from facts about negative polarity item licensing. If the object were in Spec-TP or higher at LF, it would be in an A-position with scope over everything in TP, including sentential negation. A contrast between subjects and objects with respect to NPI licensing would then be more difficult to account for, if NPI licensing is affected by scope relations at LF (as argued extensively in Uribe-Etxebarria (1994)). Such a contrast exists. As you can see in (12), in Icelandic, as in English, negative polarity items fail to be licensed in subject position by sentential negation, but are fine in object position.

- (12) a) \*Neinir stúdentar luku ekki prófinu  
       \*any student-N finish not the test-A  
       “Any students didn't finish the test”  
       b) Stúdentarnir luku ekki neinu prófi  
       Students-N finish not any test-A  
       “Students didn't finish any test”

In (13), you can see the same facts obtain for the subjects and objects of dative-subject constructions.

- (13) a) \*Neinum ketti líka ekki hundar  
       \*any cat-D likes not dogs-N  
       “Any cats don't like dogs”  
       b) Fifi líka ekki neinir hundar  
       Fifi likes not any dogs-N  
       “Fifi doesn't like any dogs”

If the objects are in Spec-TP or Spec-AgrS at LF, they will not be in the scope of sentential negation, and the NPIs in them should be illegitimate.<sup>4</sup>

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<sup>4</sup>Unfortunately, it is not possible to test for licensing of negative polarity items in overtly shifted objects; any NPI in an NP results in an inability to shift the object overtly, presumably because the NP becomes indefinite (only definite NPs can overtly shift). However, as NPI licensing is an LF phenomenon, LF relations are what should concern us here. All NPs will move outside the VP at LF for feature-checking, given Chomsky's (1993) assumptions; the only question is how high a given NP moves.

## 2.4 Finiteness and Tense

In any case, the assignment of object nominative is unconnected to questions of finiteness, a major reason for positing Tense as the locale for abstract nominative on subjects. In (14) and (15), it is clear that nominative case is still assigned to objects in experiencer-subject infinitivals. If nominative is a property of [+finite] Tense, its assignment here is mysterious.

- (14) [Að líka slíkir bílar] er mikið happ  
To like such cars-N is great luck  
“To like such cars is very lucky”

- (15) Hann taldi henni hafa verið gefnir hattarnir  
He believed her-D to have been given hats-N  
“He believed her to have been given hats”

(Jonas (1993))

Further, it has been convincingly shown by Sigurðsson (1991) that even PRO receives structural nominative in control infinitives that have morphological reflexes. As is seen in (16), Icelandic floated quantifiers agree in case, gender and number with their subjects.

- (16) a) Strákarnir komust allir í skóla  
the boys-N got all-Nplm to school  
“All the boys got to school”  
b) Strákunum leiddist öllum í skóla  
the boys-D bored all-Dplm in school  
“All the boys were bored in school”

When the subject is PRO, the floated quantifier agrees with the morphological case the subject NP would have shown were it overtly realized. This can be seen in (17b), where the embedded quantifier agrees with the invisible dative on PRO rather than the nominative on the matrix subject.

- (17) a) Strákarnir vonast til að PRO komast allir í skóla  
the boys-N hope for to (N) get all-Nplm to school  
“All the boys hope to get to school”  
b) Strákarnir vonast til að PRO leiðast ekki öllum í skóla  
the boys-N hope for to (D) bore not all-Dplm in school  
“All the boys hope to not be bored in school”

Crucially, the reverse is also true – if the matrix subject is quirky, and the embedded PRO non-quirky – that is, would have received structural nominative were it overt – the agreement is with the nominative PRO, not whatever the controller’s case happens to be (18) (agreement is with the participle in this case):

- (18) Strákanum leiddist að PRO verða kosnir/\*kosið í stjórnina  
The boys-D bored-dflt to (N) be elected-Nplm/\*elected-dflt to the board.  
“The boys were annoyed at being elected to the board.” (Sigurðsson (1991))

This seems to indicate that morphological nominative is assigned even when tense is [-finite].



### 3.0 The Mechanics of Case

Thus far, we have seen that according to every structural test, nominative objects in experiencer-subject constructions behave exactly like regular objects. The ideal analysis, then, will allow structural nominative to be assigned to objects in object position – that is, in Spec-AgrO.

In the spirit of Marantz (1991), I propose that case assignment is a purely mechanical process, a property of the clause, rather than of V and/or T. Structural case can be checked in any AgrP (henceforth referred to as Agr1 and Agr2); which case is assigned depends on how many NPs check structural case in the clause. Quirkily marked NPs will not require structural case; the Case Filter translates to a requirement that NPs must have *some* case to be well-formed; whether the case is checked structurally or quirkily is unimportant. This assignment mechanism can be expressed as in (19), modeled on a similar parameter in Bobaljik (1993) and drawing on many other characterizations of clause-bound case assignment, notably Yip et al. (1987) and Massam (1985):

(19) *The Mechanical Case Parameter*

- a) If one case feature is checked structurally in a clause, it is realized as Nominative/*Absolute*<sup>5</sup> (mandatory case).
- b) If two case features are checked structurally in a clause the second<sup>6</sup> is realized as Accusative/*Ergative*.<sup>7</sup>
- c) The mandatory case in a multiple-case clause is assigned in the top/*bottom* AgrP.<sup>8</sup>

In languages like Icelandic in which nominative case universally triggers verbal agreement, the realization of the nominative argument's phi-features on the verb can be seen purely as a reflex of case-checking; when nominative is checked, the phi-features of that NP are realized. Object nominative in Icelandic doesn't trigger person-agreement, perhaps a reflection of the fact that it is checked in Agr2P. Murasugi (1994) notes that in multiple-agreement languages, Agr2 agreement is often less featurally specified than Agr1 agreement, and it is never more specified; perhaps Icelandic Agr2 cannot support a full range of phi-features, as she suggests is the case for object agreement in some languages.

Case on this system is not a property of Tense or the verb (except for lexically specified quirky case). PRO will receive case (indeed, requires it) just like any other NP, as shown by Sigurðsson.

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<sup>5</sup>Italics indicate the parameter settings for Ergative/Absolute languages.

<sup>6</sup>"Second" here is not meant in a sequential sense; because of the restrictions on movement, accusative in overt object shift examples will be checked first. These conditions are to be interpreted as well-formedness conditions against which a completed derivation is checked; if the wrong cases have been assigned when all features have been checked at LF, the derivation will crash. If the right cases have been assigned and the conditions of the MCP above are satisfied, the derivation is good (with respect to the MCP).

<sup>7</sup>Bobaljik (1993) points out that in some ergative languages like Basque, or split-ergative languages like Georgian, ergative marking on arguments of intransitive verbs is possible. He argues that in such cases, the intransitivity of the verbs is only apparent, following Hale and Keyser (1991), in which certain predicates (CAUSE, AFFECT, etc.) are represented at deep structure with a direct object which subsequently incorporates into the predicate. In Basque and Georgian, this direct object affects the case-marking in the clause; in Yup'ik it does not. For further discussion, see Bobaljik (1993) and references cited therein.

<sup>8</sup>Note that ECM and Raising NPs are considered to be part of both the matrix and the embedded clause, as the A-chains they form link the two.

#### 4.0 Subject positions/licensing

If case, even case as ephemeral as “abstract” case, isn’t what is forcing subjects to be suppressed in infinitival constructions, what is? (Note that the dative subject is disallowed in the infinitives in (14) and (15)). Further, what is motivating movement of quirkily marked subjects to positions high in the clause?

In the Minimalist framework, the mechanism necessary is clear enough; some “subject” features high in the clause must control both phenomena, in more or less the same way abstract case used to. Jonas and Bobaljik assume that the Extended Projection Principle is satisfied in Spec-TP, when the subject checks some feature there. On the system outlined here, that will not be enough to motivate movement to the topmost position of the clause for quirky subjects, as they will not need to reach Agr1 to receive case. Following Branigan (1992), among others, I will adopt a functional projection above AgrS whose specifier is an A-bar position. Branigan motivates this projection to account for the A-bar properties of subjects noted for Yiddish by Diesing (1990); he extends the account to subjects in Dutch and English. Jonas (1993) also argues that subjects in Icelandic are in an A-bar position, and Vikner (1991) notes that Icelandic expletives show A-bar properties. This position could also conceivably be relevant to phenomena for which recursive CPs have been proposed, for example, embedded V2 phenomena. I’ll refer you to Branigan for extensive argumentation for this projection, and just sketch a brief argument from Jonas for an extra XP in exploded Infl.

Jonas takes certain adverb placement facts in Icelandic to indicate that there must be at least two possible subject positions above Spec-TP in Icelandic. In (20) we can see that an adverbial element can appear between the subject and the finite verb in Icelandic:

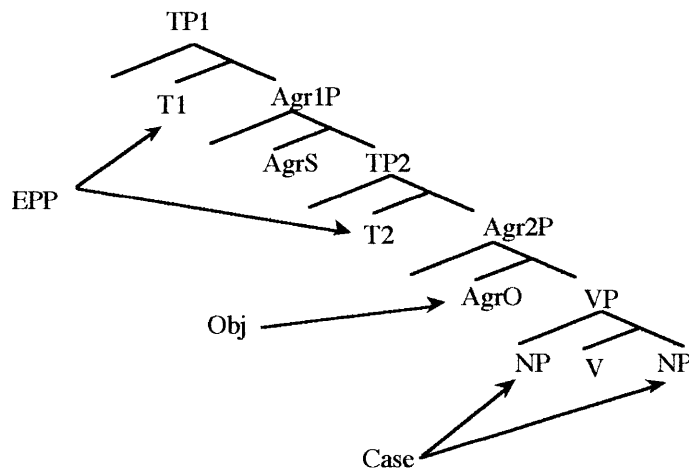
- (20) Jón bara/kannski strykur kettlingnum aldrei.  
John only/perhaps strokes the kitten never. (Jonas (1993))

Recall that the facts of TEC+OS show that the finite verb has raised to Agr1 in Icelandic, as there must be two functional projections between it and the edge of VP to host the subject and object. By assumption, adverbial elements may only adjoin to maximal projections, indicating that there must be a maximal projection between the subject and the finite verb in (20). The subject must have raised to a position beyond Agr1P. This is similar to an argument from Kayne for English (data in (21)); although in English there is no way to distinguish between the two possible auxiliary positions, T and AgrS, so (21) alone does not show there is an extra projection for English.

- (21) a) Sara undoubtedly has not taken her dog for a walk for several days.  
b) Kate certainly can’t go to school today.  
c) Emma probably isn’t ready to go to bed yet. (Kayne (1989))

Exploded Infl now looks like (22):

(22)



There are “subject” features in the two TPs which need to be checked. I claim, however, that only the A-bar position controls the appearance of an overt subject vs. PRO. This is accomplished via a [+/- overt] EPP feature in TP1, and allows the capture of a contrast between Icelandic ECM/Raising constructions and Control constructions.

#### 4.1 Infinitives

In a familiar case of ECM or raising, a matrix verb selects an infinitive complement, and the subject NP raises to some position in the matrix clause to get case. On the analysis suggested above, no obvious way to prevent a subject in an embedded clause from receiving case suggests itself, as nominative can be checked in any AgrP. Worse, the EPP features of infinitival Tense can only be checked by a [-overt] NP, that is, by PRO. A sentence like (23) or (24) a) or b) thus creates problems for the analysis; either it is violating the Projection Principle, with both an overt and a PRO subject in the embedded clause, or the overt subject is getting case from both AgrS and the matrix AgrO and is checking the EPP features of Tense although it is infinitival.

- (23) a) Calvin seems to like Hobbes.  
 b) Calvin believes Hobbes to understand math.
- (24) a) Allir telja krakkarna hafa brotið bátana í spón.  
 all believe the kids-A to have broken the boats-A in pieces.  
 “Everybody believes the kids to have broken the boats into pieces”  
 b) Krakkarnir eru taldir hafa brotið bátana í spón.  
 the kids-N are believed to-have broken the-boats-A in pieces.  
 “The kids are believed to have broken the boats into pieces”  
 (Zaenen and Maling (1990))

Further, so far, nothing would prevent PRO from being licensed in an ECM context in the embedded clause, forming the illicit structure in (25):

- (25) \*Calvin believes PRO to like Hobbes.

Facts noted by Sigurðsson (1989), however, indicate interesting structural differences between ECM/Raising constructions and infinitival control constructions. Among other things, in Icelandic, infinitival verbs raise out of the VP in control structures,

but cannot in ECM or Raising structures. This can be seen in (26)-(38) (recall that *ekki* marks the left edge of VP).

- (26) a) *María lofaði [að lesa ekki bókina]*  
 Mary promised to read not the book  
 “Mary promised to not read the book.”  
 b) \**María lofaði [að ekki lesa bókina]*  
 Mary promised to not read the book (Control)
- (27) a) \**Ég taldi [Maríu lesa ekki bókina]*  
 I believed Mary read not the book  
 “I believed Mary to not have read the book”  
 b) *Ég taldi [Maríu ekki lesa bókina]*  
 I believed [Mary not read the book] (ECM)  
 “I believed Mary to not have read the book”
- (28) a) \**Maria virtist [lesa ekki bókina]*  
 Mary seemed read not the book  
 “Mary seemed to not read the book”  
 b) *María virtist [ekki lesa bókina]*  
 Mary seemed not read the book. (Raising)  
 “Mary seemed to not read the book”  
 (Sigurðsson (1989))

Modifying a proposal of Watanabe (1993a), I claim that the complements of ECM and Raising verbs are not full CPs, but impoverished clauses headed by TP2. Overt verb raising is motivated by strong features on AgrS or TP1; if these projections are missing, verb raising will not take place. If [-overt] EPP features are in the head of TP1, they will not be available to force the appearance of PRO in ECM and Raising constructions, preventing the problem raised by (24), and the lack of AgrS should prevent the checking of structural case in the embedded clause, forcing movement of the subject to the matrix clause at LF<sup>9</sup>. The subject does move to Spec-TP2 by Spell-Out, as is evidenced by its position with respect to *ekki* in (26)-(28). It's worth noting that another prediction of this analysis holds true; as noted by Watanabe, if the verb is not raised overtly in ECM and Raising structures, overt Object Shift should not be possible; however, it should be possible in Control structures. This is in fact the case (29):

- (29) *María lofaði [að lesa bókina ekki]*  
 Mary promised to read the book not  
 “Mary promised to not read the book.”

<sup>9</sup> Liljana Progoваç (p.c.) points out that in sentences like “John wants for Mary to leave”, which clearly involve a full CP complement, the above account seems to run into difficulties; if the complement is a full CP, presumably AgrSP and TP1 are present, and case is available. Further, the infinitive tense on the complement TP1 should force the appearance of PRO. I will provisionally adopt the stance that this is correct, and that these constructions involve Control of the complement PRO by “Mary”, licensed by “for” in a PP in Spec-CP. This account of course requires further fleshing out, which will appear in Harley (to appear).

## 5.0 Further Consequences

### 5.1 Locative Inversion

Branigan (1992) makes use of the TP1 projection to treat locative inversion in English. In locative inversion, a (usually directional, “goal”-type) PP appears sentence-initially, followed by the finite verb and the nominative subject. An example is seen in (30).

(30) a) Into the bar sauntered the sheriff.

As noted by Bresnan (1977), the locative phrase shows, interestingly, “that”-trace effects (31).

- (31) a) \*Who did<sub>i</sub> you say that  $\bar{t}$  ate the cake?  
 b) Who did you say  $\bar{t}$  ate the cake?  
 c) \*Into which bar did you say that  $\bar{t}$  sauntered the sheriff?  
 d) Into which bar did you say  $\bar{t}$  sauntered the sheriff? (Bresnan, 1977)

Branigan notes that this can be simply accounted for if the locative phrase is in Spec-TP1, satisfying the EPP. On his analysis, the locative phrase has A-bar moved there from its adjoined position in the VP. I would like to suggest that its derivation is exactly parallel to that of the dative subjects I discussed earlier, and that it A-moves through Spec-AgrTP2 just like a regular English subject. Bresnan (1993) discusses the many ways in which locative inversion constructions behave like unaccusative predicates; in addition, she points out that virtually all locative inversion seems to force the interpretation of the locative PP as a Goal argument, rather than a mere Location adjunct. This argument structure seems to me to closely parallel that of experiencer predicates, suggesting a structure like that outlined for experiencer subject constructions in (11), with the locative phrase as an argument of verb. What is particularly interesting about this parallel is that given Minimalist assumptions about movement, the only instance in which an NP that is not base-generated in Spec-VP1 will be able to get into subject position at the left edge of Infl is when the predicate is unaccusative. If Spec-VP is filled, the only NP that can reach Spec-TP or higher is the NP in Spec-VP. If Spec-VP is not filled, then the lower argument of a ditransitive unaccusative predicate is predicted to be able to raise high in the clause via Spec-VP. This seems to be the case in the two instances of ditransitive unaccusatives I know of, that is, in experiencer subject and locative inversion constructions. Further, it predicts correctly the ungrammaticality of transitive locative inversion structures like (32):

(32) \*To the bench summoned the judge the lawyers.

As discussed in Bures (1992) and Collins and Thráinsson (1993), the Minimalist assumptions about movement force the consequence that when a verb has three arguments, at least one of them must remain inside the VP or undergo an illegal movement that crashes the derivation. Given the argument status of the locative in locative inversion constructions, locative inversion of transitive verbs is correctly predicted to be ungrammatical.

### 5.2 Irish and the EPP

If giving the notion “subject” independent theoretical status merely involves positing more features to be checked before Spell-Out, presumably one would expect the possibility that those features could be weak – that is, that they needn’t be checked before Spell-Out. If in fact movement to these subject positions is universally attested, it would be more satisfying to derive it from deeper principles. Interestingly, however, weak EPP features seem to be attested in Irish. McCloskey (1994) has proposed just this restriction to

account for a large range of facts about Irish unaccusatives. His proposed structure has the finite verb in AgrS and the subject in Spec-TP (giving the Irish VSO order). The structure proposed above is consistent with his conclusions, and I would like to suggest that the addition of TP1 to the exploded Infl would capture some additional Irish facts.

Examine (33):

- (33) Deireann siad i gcónaí paidir roimh am luí  
 say they always prayer before time lie-FIN  
 “They always say a prayer before bedtime” (McCloskey (1994))

McCloskey notes that there is a small class of sentential adverbs in Irish that indicate movement of the subject out of the VP, as the subject appears to their left. (For additional evidence of subject-movement in Irish, see Bobaljik and Carnie (1993)). On a standard Infl structure, with just three functional projections, the adverbial would have to be adjoined to Spec-AgrO – verb in AgrS, subject in Spec-TP, adverbial adjoined to AgrO, object in Spec-AgrO. On McCloskey’s story, the EPP is satisfied for Irish in Spec-AgrS rather than Spec-TP, although Spec-TP has been convincingly argued for as the locus of the EPP in Icelandic by Jonas and Bobaljik. On a treatment like that outlined above, however, the finite verb would be in T1 rather than AgrS, the subject in Spec-AgrS and the sentential adverbial adjoined to TP2. Adjunction to TP2 for this class of adverbial seems more likely than adjunction to AgrO, as argued by Barbosa (1993). Both EPP features in TP1 and TP2 would then be weak in Irish, and only need to be satisfied at LF.

Andrew Carnie (p.c.) points out that there is morphological evidence for two TPs in Irish, as well. In (34), it can be seen that there is a perfective aspectual particle *tareis* between the subject and the overtly shifted object.

- (34) [TP1 Tá [AgrP1 Calbhín [TP2 tareis [AgrP2 Hobbes [Agr2 a [VP bhuail...]]]]]]  
 Be.pres Calvin after Hobbes obj.agr hit  
 “Calvin has just hit Hobbes”

If aspect is marked in Irish in TP2, it seems natural to assume that tense is marked in TP1, where the finite verb shows up (and, recall, where [+/- overt] is licensed, depending on finiteness). A four-projection Infl structure like that outlined above provides a neat slot for all of these elements to appear in.

## 6.0 Conclusions

I have argued that so-called abstract nominative must be available in Icelandic in Spec-AgrO, and hence cannot motivate movement of subject NPs high in the clause – the notion of case-licensing can not be considered to explain subject movement. A separate mechanism must be posited to accomplish this, essentially giving the notion “subject” independent status in the theory.

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