Where's Φ?*

Agreement as a post-syntactic operation

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This paper develops an argument that agreement (in particular NP-predicate agreement) is a morphological and not a syntactic phenomenon. Narrowly, I argue against the proposition that the configurational/positional licensing of NPs (what was considered to be the domain of Case Theory in the *LGB* framework of the 1980s) involves checking/matching/valuing of Φ-features (person, number, gender) in the syntax. To the extent that verbs show morphological agreement with an NP, the copying or sharing of features occurs in the morphology, after the syntax.

1. Context

In particular contexts, ϕ-features (person, number, gender) are uninterpreted, that is, they do not contribute to the interpretation of the sentence. The issue is not as simple as saying that φ-features are interpreted on nouns but not on verbs (to roughly paraphrase Chomsky 1995, 278). Thus, φ-features such as person and number can be ignored in resolving a variety of ellipsis contexts. This is true of agreement features on verbs in languages where the finite verb is elided, as (1) shows.

(1) Ele sempre comprava aqui, mas nós não. [comprávamos]
he always buy.PAST.3SG here, but we not buy.PAST.1PL
'He used to buy things here, but we didn't.' (Brazilian Portuguese, Zocca 2003, 39)

But it is also true of the φ-features on nominal categories, as (2) (examples due to Irene Heim) and (3) indicate for person and number, respectively. The elided VP in (2a), under the most natural reading of the assertion, must be (2c'), in which *my* is translated as a bound variable, and not as a first person possessive (though the latter interpretation is also possible). Similarly, number on the predicate NP is ignored in (3).[1]

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[1] Gender is more complex. To a first approximation, masculine gender in the antecedent may be ignored, while feminine in the antecedent is interpreted and may not be ignored; thus a masculine antecedent is compatible with a feminine NP in the second conjunct, but not vice versa, as the contrast in (i) vs. (ii) shows. I believe this to be independent of the morphology of the masculine-feminine distinction and to correlate rather with semantic categories of nouns (pairs denoting nobility like *prince-princess* are bad in either order). See Zocca (2005).

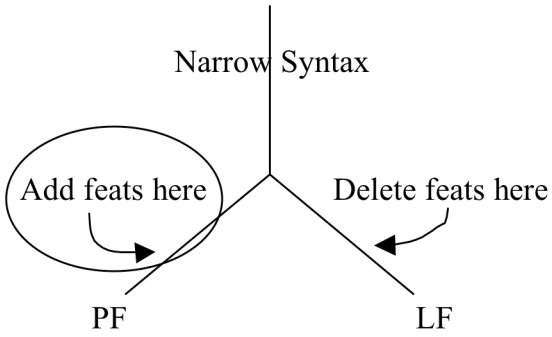
(2) a. I finished **my** homework, and you did [$_{VP}$ Ø] too. [$_{VP}$ finished **your** homework]
b. Only I finished **my** homework. [=she did not finish **her** homework]

c. λx [x finished **my** homework]
c'. λx [x finished **x's** homework] 1st person pronoun as bound variable

(3) a. Kevin Spacey is a good actor, and Anthony Hopkins and Richard Harris are [Ø] too.
b. Anthony Hopkins and Richard Harris are good actors, and Kevin Spacey is [Ø] too.

The generalization appears to be that *agreement features are not interpreted on the target*, even if the features are otherwise interpretable on the category on which they appear (e.g., number on NP in (3)).[2] Within the general Y-model of the architecture of grammar (4), there are two ways to incorporate the generalization that agreement features do not reach the semantic interface. One may posit that agreement is a syntactic phenomenon (this is the tack Chomsky has taken in the *Minimalist* writings) and hence that agreement features are present on the target in Narrow Syntax. On this view, agreement features, being uninterpreted, must be deleted on the LF branch. An alternative view, (the one suggested by Heim for the cases in (2) as it happens) would be to assume that agreement—qua feature-copying/sharing—occurs as a part of "Spell-Out", that is, along the PF-branch (which arguably includes Morphology, see Halle & Marantz 1993). That φ-features on the target of agreement are not seen by the semantics interface follows because those features are not present in those positions anywhere in the derivation from numeration to LF (the "syntax").

(4) Two models of agreement:



In this paper, I will provide two additional arguments that converge with Heim's suggestion that agreement is post-syntactic, in the sense indicated in (4). Both arguments revolve around how the controller of agreement is determined, and both arguments indicate that the determination of the controller of agreement, while partly a function of syntactic configuration, is nevertheless a part of the PF-branch (morphology) and not a part of "narrow" syntax.[3] For the

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(i) ? Richard Harris was a good actor, and Katherine Hepburn was too.
(ii) * Katherine Hepburn was a good actress, and Richard Harris was too.

[2] I am avoiding the terms *probe-goal* in characterising agreement in favour of the more neutral *target-controller*. In part, this is because the issues seem to generalize beyond verb (probe) – argument (goal) and it is hard (for me) to see how a bound variable pronoun—the target of agreement in (2)—might reasonably be characterized as a probe.

[3] That syntactic configuration is involved in the formulation of the algorithm does not make the algorithm part of syntax; by definition, the PF interface (perhaps a series of operations) takes a syntactic representation as its input, hence what is proposed here lies squarely in the family of phenomena that are part of the PF interpretation of syntactic structure, but are not themselves part of "narrow syntax". Other such phenomena include prosodic phrasing, sandhi rules, (arguably) choice of copy to pronounce/delete (see Bošković 2001, Bobaljik 2002),

sake of concreteness, the general proposal will be that morphological agreement (at least for languages in which only one NP controls agreement on the finite verb) is determined by (5).

(5) The finite verb agrees with the highest accessible NP in its domain.

This hypothesis has three crucial parts, as underlined. The major focus of the present paper will be on *accessibility*. Specifically, I will argue that accessibility is defined in terms of m-case, rather than grammatical function (GF) or other syntactic relations (see also Sigurðsson 1993, Falk 1997). This is significant since there is independent reason to believe that m-case is itself a part of the spell-out procedure (discussed in section 2). This leaves us with an order-of-operations argument: if agreement is dependent on the outcome of a post-syntactic operation (m-case), then agreement must also be post-syntactic.

Locality, both relative (highest) and absolute (domains) will play little role in the present work, although I will turn to these in sections 4 and 5.[4] The main role of these aspects of the proposal is to uncover converging evidence for the thesis, embodied in (5), that accessibility and locality are necessary and sufficient for agreement. In other words, I will argue for a "close enough" effect; an NP need bear no relation to a verb other than satisfying morphological accessibility and locality in order to trigger agreement on that verb.[5] In particular, an NP may control agreement even if it is not a syntactic or semantic argument of the verb. Presenting evidence that this is indeed correct occupies the brief discussion in section 4. Contrary to the characterization of agreement in Chomsky (2001) and related work, there is no privileged status to—nor interaction with—feature-checking/licensing relations. Just as NP-licensing turned out not to be about case (in any way transparently related to the observable phenomenon with that name), so too is licensing not about agreement (in any way transparently related to the observable phenomenon with that name).

In the final section of the paper, I will briefly contrast the proposals here with one aspect of recent Minimalist discussions of agreement in Icelandic, arguing that a generalization which would appear to be inconsistent with the view I am proposing is in fact not correctly stated. The generalization of issue concerns "defective intervention" effects, in which a dative NP is not accessible for agreement, but nevertheless is claimed to block agreement with a lower nominative DP. Under the formulation of (5), such "defective intervention" effects should not arise in agreement. I will argue that in fact they don't, and that at least one of the central apparent cases of defective intervention may involve restrictions on movement, not agreement.

2. On case and licensing

Before turning to the main points of this paper, it will be useful to review some of the arguments for distinguishing m-case from syntactic licensing, and for treating the former as a morphological operation, since it is this assumption that forms the lynchpin of the order-of operations argument in section 3. As good a beginning as any is provided by a discussion of quirky case in Icelandic.

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etc.

[4] For present purposes, it will suffice to think of *domains* as constituting the clause containing the inflected verb (V+Infl) plus the "edge" (Spec of the highest projection) of the next clause down (see Polinsky 2003). This is like Chomsky's *phases*, but different in that *vP* plays no (obvious) role. See Bobaljik & Wurmbrand (2005) for more discussion of agreement domains.

[5] See also Van Koppen (2005), who argues that "closest" does not pick out a unique NP in all cases, and that when the locality function picks out multiple NPs, the choice of controller is determined by morphoogical specificity of vocabulary items that express agreement. Van Koppen surveys a range of such cases, primarily from Dutch and German, but with extensions beyond.

As has been known since at least Andrews (1976) and Thráinsson (1979), Icelandic has a variety of case frames that depart from the canonical nominative-accusative pattern. Among these are a range of subjects that bear a morphological case other than nominative. This can be illustrated with dative subjects, which occur as external arguments to a range of experiencer predicates (as in (6a)) and also as the derived subjects in the passive of verbs selecting a dative object in the active (6b-c).

(6) a. **Jóni** líkuðu þessir sokkar
Jon.D like.PL these socks.N
'Jon likes these socks.' (Jónsson 1996, 143)

b. **Þeim** var hjálpað.
them.D was.SG helped
'They were helped.' (Zaenen, Maling & Thráinsson 1985, 97)

c. **Konunginum** voru gefnar ambáttir
The.king.D were given slaves.N
'The king was given maidservants' (Zaenen, Maling & Thráinsson 1985, 112)

The literature establishing that quirky dative subjects are indeed subjects is quite extensive, and the arguments are compelling, see especially Zaenen, Maling & Thráinsson (1985), Sigurðsson (1989 et seq). In addition, Harley (1995) and Jónsson (1996) have carefully established that the nominative objects in such quirky-subject constructions are indeed objects, and systematically fail the corresponding subjecthood tests. A representative list of diagnostics that pick out nominative subjects in "normal" clauses, but converge on the dative, and not the nominative, in quirky subject constructions is given here:

(7)
Raising to Object / ECM	Subject-Oriented Reflexives
Subject-Verb Inversion	Extraction
Subject Ellipsis in Coordination	Infinitive Complements (PRO)
	Indefinite-Subject Postposing (D.E. / Expletives)

Note that Icelandic is a V2 language, hence initial/pre-verbal position is **not** a subject-diagnostic. The fact that the datives occur before the verb in (6b-c) does not establish that they are subjects, in particular, as it does not distinguish these datives from topicalized non-subject datives (this was the main point of Zaenen, Maling & Thráinsson 1985) and will become important again at the end of the paper).

This is clearest in head-to-head comparison with German, which allows word-for-word translations of (6a-c) [up to the OV word order in the VP in (6c)] but in which the datives systematically fail all applicable subject-hood diagnostics.

A representative minimal contrast set is given here. In control infinitivals, the subject is replaced by PRO. Non-subjects cannot be replaced by PRO. In Icelandic, the NP that is replaced by PRO in a control infinitive is the NP that would have (quirky) dative in a finite clause. Compare (8a,b) to (6b,a). In addition, the nominative NP is not eligible to become PRO and remains overt in the control infinitive.

(8) Control (Icelandic)

a. Ég vonast til [að ___ vera hjálpað t_{DAT}]
I hope for to PRO_{DAT} be helped
'I hope to be helped' (Zaenen, Maling & Thráinsson 1985, 109)

b. Jón vonast til [að ___ líka þessi bók]
J.N hopes for to PRO$_{DAT}$ like this book.N
'Jon hopes to like this book.' (Jónsson 1996, 115)

c. * María vonast til [að ___ líka Jóni]
M.N hopes for to PRO$_{NOM}$ like Jon.D
'Maria hopes that John likes her.' (Jónsson 1996, 116)

German contrasts directly on each of these points. The dative may not be expressed as PRO, while the (NP corresponding to the finite) nominative must be PRO. Compare (9b-c) to the corresponding Icelandic examples, which have the opposite status.[6]

(9) Control (German)

a. *Ich hoffe [_ geholfen zu werden]
I hope PRO.D helped to be
'I hope to be helped.'

b. * Ich hoffe [__ der Peter zu gefallen]
I hope PRO.D the.N Peter to like
'I hope to like Peter.'

c. Ich hoffe [__ dem Peter zu gefallen]
I hope PRO.N the.D Peter to like
'I hope that Peter likes me / to be liked by Peter.' (S. Wurmbrand, p.c.)

In sum, other than their case (and agreement) properties, quirky-case arguments in Icelandic behave just like canonical subjects and objects. Of particular relevance to the current discussion is the observation that quirky-case DPs behave like their normal (nominative or accusative) counterparts, with respect to all of the properties governed by "Case Theory" within the *LGB* framework of the 1980s (Chomsky 1981) and its current descendants. As (8b,c) show, for example, it is the subject that is suppressed in a non-finite clause, not the nominative (object). Having quirky case (dative in (8c)) thus does not count as having case for the purposes of the Case Filter. Similarly, ECM, raising to subject position in passive, and the other hallmark properties of "case-driven movement" all apply to quirky NPs just as they would if the quirky case were ignored. The moral of Zaenen, Maling & Thráinsson (1985), then, is that all of the syntactic effects of Case Theory are evident in Icelandic, but can only be understood if one ignores the fact that some of these NPs happen to actually bear case morphology.

The standard means to salvage Case Theory as a theory of syntactic licensing, applicable to English and Icelandic equally, is therefore to draw a sharp divide between an abstract notion of structural case, on the one hand, and morphological case, on the other (Cowper 1988, Freidin & Sprouse 1991). It is, on this view, only the former that interacts with the syntax; morphological case plays no role in the syntactic computation and is the purview of strictly morphological algorithms.[7]

Marantz (1991) provides an initial proposal for the format of morphological case-assignment rules (for subsequent development of the ideas, see, among others, Harley 1995,

[6] Note, though, that the underlying hierarchical relations are the same across the two languages. In particular, although the control diagnostic picks out the nominative NP and not the dative in German, it is the dative that is the higher of the two in its base position. Diagnostics establishing this include binding and WCO asymmetries that differentiate DAT > NOM clauses (experiencer, theme) from NOM > DAT clauses (agents, plus goal/dative theme). See Frey (1993), Haider & Rosengren (2003), Wurmbrand (to appear), among others.

[7] Once this distinction is recognized, it is quite reasonable to question whether there is any merit to referring to syntactic licensing as "structural case" or "case licensing".

Schütze 1997, McFadden 2004). Simplifying somewhat, Marantz proposes that there are three types of case: lexical case (includes quirky case, assigned idiosyncratically by particular lexical items, such as verbs), default case (nominative for nominative-accusative languages, and absolutive for ergative languages), and "dependent" case. This latter case is assigned only in an environment where more than one NP in a single domain is eligible to receive case for the case-assignment rules. For nominative-accusative languages, the dependent case is accusative, and is assigned to the lower NP in the domain, while for ergative languages, the case dependent case is ergative, assigned to the higher NP. Marantz suggests that the assignment of morphological cases proceeds via a disjunctive hierarchy, as follows.

(10) Case Realization Disjunctive Hierarchy Domain: government by V+I
   a. lexically governed case
   b. dependent case (ACC, ERG)
   c. unmarked / default case

The workings of the hierarchy are schematized roughly as in the derivation in (11), which represents the case arrays for a regular nominative/accusative verb 'love' and a quirky-dative assigning verb 'like' in Icelandic.

(11) a.

Subj	loves	Obj.	
---		---	lexical
---		**ACC**	dependent
NOM		ACC	default

b.

Subj	likes	Obj	
DAT		---	lexical
DAT		---	dependent
DAT		**NOM**	default

The first m-case assigned is lexical; this applies only in (11b), as a lexical property of the verb meaning 'like'. Next dependent cases are assigned. In (11a), there are two NPs requiring m-case, and the lower one receives accusative. In (11b), since the subject has received lexical case, it is out of contention, and thus dependent case is not assigned. Finally, the remaining caseless NP in each derivation receives default nomiantive case.[8] In (11a) this is the subject, yieldng the NOM-ACC array, while in (11b) nly the object is without case and hence it receives nominative (as in (6a)). Further details of the algorithm are not important, and the reader is referred to the literature cited for a deeper understanding and for various refinements.

What is important here is the flow of information in the system. The morphological case assignment algorithm must make reference to syntactic structure; at a minimum, in order to correctly allocate dependent cases, the relative hierarchical positions of two competing NPs must be known, a property that is established by the syntax. On the other hand, there is no evidence that syntax ever sees the output of the morphological case-assignment algorithms. This was the point of the separation of licensing and m-case. These properties follow if morphological case-assignment is part of a post-syntactic morphological component. In other words, part of the mapping to phonological form involves a set of operations taking a syntactic structure as input, and adds information to that structure in order to produce the phonological form we eventually hear.

[8] Nominative case assignment is not an obligatory property of finite clauses. If the only argument in the clause bears a lexical case, such as Dative (as in (6b)), no further case assignment takes place, and the verb shows default agreement. There is, crucially, no evidence for a (null) expletive here: Icelandic has expletives, and these impose various requirements on the subject DP, including a definiteness restriction. This applies equally to dative subjects (Jonas 1996), hence the absence of any such effect in (6b) argues against positing such an element. See also Wurmbrand (to appear).

In sum, the lesson from quirky case in Icelandic is that morphological case is distinct from the kind of syntactic licensing that was the domain of Case Theory, and that morphological case assignment as an algorithmic procedure operates on the output of, thus follows, the syntax.

3. Agreement, Case and Grammatical function

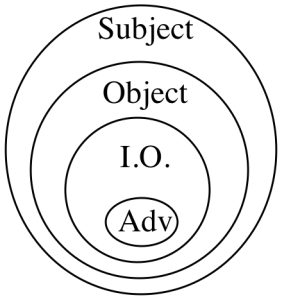
In this section, I turn to the evidence that agreement between NPs and predicates is sensitive to the output of morphological case.

3.1 The Moravcsik Hierarchy

In the context of the Stanford Universals Project, Moravcsik (1974) presented a set of implicational universals regarding (NP-predicate) agreement. The universals are formulated in terms of **grammatical functions** (subject, object, etc.), and include implicational hierarchy schematized in (12). The hierarchy ranges over languages, not sentences, and conflates a set of statements such as the following (see Moravcsik 1978 for revisions):

- If in a language the verb agrees with anything, it agrees with some or all subjects
- If the verb agrees with anything other than subjects, it agrees with some or all direct objects

(12) Moravcsik (1974)



A survey of 100 genetically and areally diverse languages, reported in Gilligan (1987), confirms this broad picture. As shown in (13), the hundred languages are divided roughly equally among the four types that are consistent with the hierarchy, while the four types of languages that are not consistent with the hierarchy are arguably unattested.[9] Thus, no language has agreement with non-subject arguments, but systematically lacks subject agreement.

(13) Gilligan's Survey (100 languages)

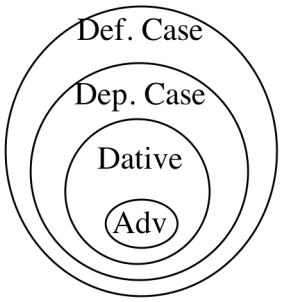
No Agreement:	23	IO only:	0
S only:	20	DO only:	0
S - DO:	31	IO, DO only:	0
S – IO – DO:	25	S-IO, not DO:	(1)

[9] Gilligan reports one language, Waskia, as having indirect object agreement but lacking direct object agreement. The phenomenon he reports (p. 191) as IO-agreement is suppletion of the verb meaning 'give' for person and number of the indirect object. Person-governed suppletion with 'give' seems to be a phenomenon independent of agreement as such (see posting by Bernard Comrie, *LinguistList 11-1166*, 2000).

3.2 Proposal: A revised hierarchy

As noted above, I intend to argue that the universal implicational hierarchy should be stated in terms of morphological case rather than grammatical function. More narrowly, I argue that the hierarchy should be re-stated in terms of the categories of morphological cases suggested by Marantz (1991) and McFadden (2004), as given in (10) above. Thus, I suggest (12) be re-formulated as (14).

(14) Case ≠ Grammatical Function (GF)



Default Case: Nominative/Absolutive

Dependent Case: Accusative/Ergative

Dative Case (lexical)

In effect, then, my proposal is that morphological case delineates an accessibility hierarchy for morphological agreement. For example, if in language L, accusative NPs are accessible for agreement, then, by (14), nominative NPs in that language must also be accessible for agreement. In languages with rather boring morphological case systems, where m-case tracks GF fairly neatly (for example, Russian and German), (14) is thus equivalent to (12). The interest comes from languages in which case and GF do not always line up. The thesis I will push is the following (see also Falk 1997):

(15) When case and GF diverge, it is **m-**case, not GF, that offers a more accurate typology.

At this point, I turn to an examination of case:GF mismatches that bear out (15).

3.3 Case:GF Mismatches

In this section, I examine two instances where there is not a 1:1 mapping of case:GF. The conclusion in each case is that the controller of agreement is determined by m-case and not GF. For example, when there are non-nominative subjects, and nominative non-subjects, it is nominative (default) case and not subject-hood that is the correct predictor of agreement. Up to some details about Indo-Aryan (on which, see the longer version of htis paper, in preparation), this state of affairs has generally been recognized for each of the languages discussed; what I contend here is that this is the normal, universal state of affairs (see also Falk 1997).[10]

3.3.1 Ergativity and the Moravcsik Hierarchy: A typology puzzle.

The first case to be examined involves ergative languages, taken as a class. It is plausible to think of Ergativity as, by definition, a case:GF mismatch. For review, the diagram in (16) shows the groupings of major clausal actants that define Nominative versus Ergative systems or alignments, with the abbreviations from Dixon (1994). In the realm of case-marking, a nominative system treats the direct object of a transitive predicate (O) as special, assigning it

[10] Two Dagestanian languages have thus far been suggested to me as posing potential counter-examples, namely Dargwa and Hunzib (G. Corbett, J.-W. Zwart, personal communications, 2004). I don't have enough facts yet to evaluate these fully.

a special marking, while the transitive subject (A) and sole argument of an intransitive predicate (S) are grouped together as nominative. An ergative system, by contrast, groups the S and O together as absolutive, reserving a special case, the ergative, for the A argument.

(16) Major case-system types.

Nominative System	arg.	Ergative System
Nominative	A	Ergative
	S	Absolutive
Accusative	O	Absolutive

Despite the different groupings for case assignment, it is well established that many diagnostics that one may be tempted to consider as subject-object asymmetries work in the same way across the language types, treating A and S as subjects, as distinct from O. Some patterns which are never ergative, according to Dixon (1994), include "subject-orientation" of reflexives, imperatives, and Control. Even in languages with ergative case marking, only subjects, that is, A and S arguments and never O, may be obligatorily controlled unexpressed elements in infinitives (i.e., PRO). In other words, while there is quite a bit of apparent syntactic variation among languages, there has been little success in showing that the **syntax** of subjects/objects is **systematically** different in a way that is correlated with "ergativity".[11] In particular—to the extent that it is meaningful to speak of the effects in just mentioned as "subject-object" asymmetries, or "subjecthood" diagnostics, then there appears to be a relatively coherent notion of "subject" that extends to ergative languages, but this notion cuts across case distinctions, by definition, in such languages.

Now, it turns out that the kind of implicational universals that motivated the Moravcsik hierarchy are also attested in ergative languages. Some patterns of agreement are well attested, while others are unattested. This is summarized in (17), which should be compared to the results of Gilligan's survey in (13).

(17) The Moravscik Hierarchy and Ergative languages:[12]

a.	no agreement	Dyirbal, Lezgian	e.	* ERG only
b.	ABS only	Tsez, Hindi?	f.	* ERG DAT, no ABS
c.	ABS ERG	Eskimo-Inuit, Mayan	g.	* DAT only
d.	ABS ERG DAT	Basque, Abkhaz	h.	(*ABS DAT, w/o ERG)

Sources: Murasugi (1994 p.147), on (e) also Croft (1990), Woolford (1999)

[11] The one apparent case of a systematic difference is in accessibility for relativization (Keenan & Comrie 1977). While not all languages have an asymmetry, if there is an asymmetry, then it is absolutives that are more readily extractible than ergatives for ergative languages, while elsewhere, subjects are more extractable than objects. It is not clear to me how the Keenan and Comrie hierarchy and the one considered here might be unified.

[12] The absence of type h. is inferred from the sources cited, though not explicitly stated there. A complicating factor is that there are also "split" systems. One split type has an Ergative-Absolutive case system alongside a Nominative-Accusative (=Subject-Object) agreement system; the reverse is unattested. See Falk (1997), Woolford (1999) for proposals to explain this. The split may be a significant problem lurking here for the typology that I am presenting, but I will not address it here. Dixon 1994) notes that there is a parallel asymmetry in languages with NP/pronoun splits: there are languages in which NPs display ergative-absolutive case patterning while pronouns have nominative-accusative morphology, but the reverse is unattested. Dixon suggests that these be related, as they would be automatically if agreement could be taken to be a type of pronoun incorporation.

Important here is the absence of type (e) languages, as compared to types (b) and (c). That is, the implication (18a) holds of ergative languages. Compare this to the implication in (18b), which holds of non-ergative languages and is directly encoded in the Moravcsik hierarchy (12).

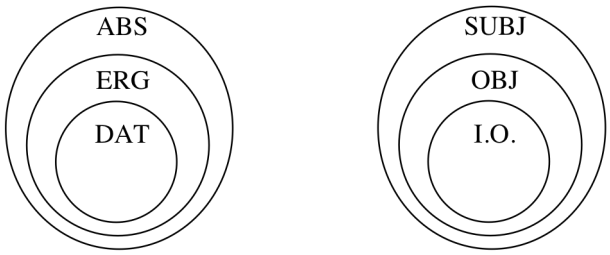
(18) a. ERG agreement → ABS agreement ***(not encoded in (12))***
b. OBJ agreement → SUBJ agreement (encoded in (12))

The implication in (18a) is not captured by the GF-based implicational hierarchy in (12). Since absolutive case is used to mark both subjects and objects, types (17b-c) are not distinct under (12); both are types of "object agreement" languages. While (12) directly excludes languages having only object agreement (but no subject agreement), it does not exclude languages having only ergative agreement, but no absolutive agreement, a known typological gap. It appears, then, that a significant generalization is being missed.[13]

Presentations such as Croft (1990) in effect simply state two hierarchies, the special hierarchy in (19a) holding for Ergative languages, that in (19b) holding for nominative-accusative ones:

(19) Two hierarchies [?]:

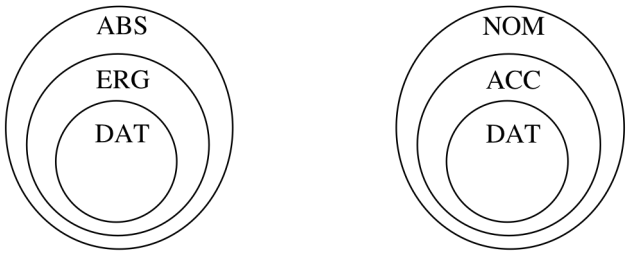
a. b.



A suspicious aspect of this discussion is that the hierarchies are stated in non-like terms. The hierarchy for ergative languages is stated in terms of **case**, while that for nominative languages is stated in terms of **GF**. Particularly striking is that the formulation in terms of case is necessary precisely for that class of languages in which case and GF do not coincide. This leaves the range of the GF hierarchy as only those languages where case and GF largely coincide. This state of affairs suggests an avenue of explanation for unification, namely, to restate (19b) in terms of case categories. so that the hierarchies are now more directly comparable. (The move made here is not entirely innocuous, and I return to this presently.) The result would be as sketched in (20).

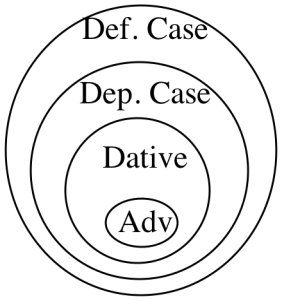
[13] This may be the motivation for rephrasing the first universal in terms of intransitive subjects versus all other terms, and moving away from the strictly nested implicational relations among the universals in Moravcsik (1978). In fact, not only is (18a) not covered by (12), but there is a sense in which (18a) and (18b) appear to be at odds with one another, when formulated in terms of grammatical functions. Focusing on transitive clauses, (18) indicates that if only one of the two arguments is eligible for agreement in that language, it will be the subject in a nominative-accusative language but the object in an ergative-absolutive language.

(20) a. b.



At this point, the chance for unification provided by the approach to case sketched in Marantz (1991) and discussed above should be transparent. Specifically, for Marantz, Ergative and Accusative (the middle circles) are alike in that both are *dependent cases*, assigned only in the presence of a local case competitor (cf. Bittner & Hale 1996, McFadden 2004). Similarly, nominative and absolutive are alike in that both are default (or unmarked) cases, e.g., the case assigned to the sole argument of a simple clause (when no lexical case overrides). Thus, in terms of Marantz's categories in (10), the two hierarchies in (20) are in fact one and the same hierarchy:

(21) M-Case hierarchy



A clear advantage of this reformulation is that the two implications in (18) now both follow automatically. Both are, in fact, the same statement, namely that if a language has agreement with dependent case NPs, then that language will also have agreement with default case NPs.

Note importantly that the somewhat paradoxical situation with transitive clauses mentioned in fn. 13 no longer arises. The equivalences between Ergative and Accusative on the one hand, and between Absolutive and Nominative, on the other, hold in the morphology and not the syntax (contrast syntactic approaches to ergativity, such as Murasugi (1992). Accusative and Ergative share the morphological property of being dependent cases, but in terms of GF and hierarchical structure in syntax, these pick out different entities (object and transitive subject, respectively). This syntactic disparity, of course, has no bearing on the agreement accessibility hierarchy, under a morphological view of agreement.

Now, in closing the section, it should be noted that the unification of the two hierarchies in (20) is predicated on the assumption that there is a rigid equivalence, for nominative-accusative languages, such that nominative:subject::accusative:object. While this is *largely* correct, it isn't *entirely* correct. Looking at the mismatches proves to be extremely enlightening—where the case:GF equivalences break down even in non-ergative languages, once again it is case, and not GF, that turns out to be the predictor of accessibility for agreement.

As Icelandic quirky case has already been introduced, I return to this data set as representative of case:GF mismatches in nominative-accusative languages. Similar facts (with additional complications) arise in the "split ergative" case system of the Indo-Aryan languages, which I will not discuss here.

3.3.2 Icelandic Nominative Objects

In section 2, I presented familiar arguments that Icelandic has non-nominative subjects, and that it has nominative NPs that are not subjects. Despite this, verbal agreement in Icelandic is only controlled by nominative NPs: Only nominative NPs agree, and agreeing nominatives need not be subjects. Thus, datives never control agreement, even when the dative passes all other subjecthood diagnostics:

(22) *Morgum studentum líka verkið
many students.D like-PL job.N
'Many students like the job.' (Harley 1995, 208)

Similarly, nominatives control agreement, even when the nominative is the object:

(23) a. Jóni líkuð**u** **þessir sokkar** (=(6a)
Jon.D like.**PL** these socks.N
'Jon likes these socks.' (Jónsson 1996, 143)

b. Það líkuð**u** einhverjum **þessir sokkar**
EXPL liked.**PL** someone.D these socks.N
'Someone liked these socks.' (Jónsson 1996, 153)

c. Um veturinn **voru** konunginum gefnar **ambáttir**
In the.winter **were.PL** the.king.D given slaves.N
'In the winter, the king was given (female) slaves.' (Zaenen et al, 112)

The (b) & (c) examples in (23) are particularly to the point, since they show agreement with the nominative in the presence of subject-diagnostics picking out the dative. In (23b), the definiteness restriction is independently known to restrict the subject, but not the object, in an expletive construction, and in (23c), the dative NP occurs in the position between the finite verb and the participle, a position effectively reserved for subject NPs. Thus, while the datives in these examples are unambiguously subjects, it is the nominatives that control agreement.[14]

The Icelandic examples thus make the same point as was made with the ergative languages. Namely, as Sigurðsson (1993 et seq.) has repeatedly stressed for Icelandic:

(24) When case and GF diverge, it is morphological case, and not GF, which is the correct predictor of agreement in Icelandic.

Consider quickly what this would mean with respect to the GF-based hierarchy. Icelandic is consistent with the hierarchy—it would be described as a language that shows some object agreement, but the language also has subject agreement (the basic case, with nominative subjects). The hierarchy would have to be supplemented by (24), perhaps on a language-particular basis. Instead, the view I advocate here is that the only thing quirky about Icelandic is that it has quirky case. That it is (nominative) objects that control agreement, and not quirky subjects in the relevant constructions, follows as an automatic consequence of stating the implicational universals in terms of morphological case. My view, then, is that (24) is not a language particular supplement to a set of universal implications, it is instead derivable directly from UG.

[14] There are various additional qualifications to be made regarding agreement with non-subject nominatives in Icelandic. Some speakers accept or in some cases prefer default agreement over agreement with nominative objects, though Sigurðsson (1996) reports that agreement with the nominative object is obligatory for "most" speakers and most verbs. I return to some additional constraints below.

3.4 Summary

When case and GF diverge, it is **m-**case, not GF, that offers a more accurate predictor of the controller of agreement.

4. Agreement without checking

Above, I have argued that accessibility for agreement is determined by m-case, respecting a universal hierarchy. If only one m-case in a language is accessible, it will be the default case, that is nominative or absolutive, depending upon the system. While accusative, ergative and dative NPs routinely agree in many languages, in no language is agreement restricted to non-default case NPs. I have set forth the following working hypothesis as the beginnings of a morphological theory of agreement (for single agreement languages):

(5)The finite verb agrees with the highest accessible NP in its domain.

Indo-Aryan facts, considered elsewhere, show the need for a relativized notion of locality. In addition, I will assume that there is an absolute locality, an agreement domain, effectively, the clause plus the edge of the next clause down (see Bobaljik & Wurmbrand in press, Polinsky 2003). Conspicuously absent from this proposal is any reference to a specific GF, or to a designated position (such as Spec,TP) or to syntactic licensing by a particular head (such as T°). In a "nominative agreement" language, it is morphological nominative that matters, not "abstract" nominative of the kind invoked in Case Theoretic accounts of movement and licensing, if such a thing exists.

This way of thinking about agreement suggests that we should expect a "horseshoes" effect, whereby being close enough, up to domain effects, is sufficient. That is, the closest morphologically accessible NP within the domain of the verb should control agreement, regardless of whether this NP bears any other relation to the verb in question. Note that this expectation sets the view I am suggesting starkly in contrast with theories of agreement in which agreement involves operations or notations on the argument structure or subcategorization list of the verb, such as proposals in GPSG, LFG and HPSG (see Bresnan & Mchombo 1987, Pollard & Sag 1994, Kathol 1999).

Recent work on Long Distance Agreement (LDA) in a variety of languages seems to show exactly this "close enough" effect. See especially Polinsky (2003), Polinsky & Potsdam (2001) (on Tsez), Bruening (2001) (on Passamaquoddy) and Branigan & MacKenzie (2002) (on Innu-aimûn). I illustrate with Tsez, a Daghestanian language.

Tsez is an ergative language, so only absolutive NPs agree. In general, this will be the subject of an intransitive, or the object of a transitive verb (or psych predicate). However, under a certain constellation of conditions, an absolutive Topic in the embedded clause controls agreement on the matrix verb. The conditions are given here:

(25) Tsez: no absolutive NP in matrix clause
topic is (arguably) at **edge** of embedded clause,
that is: it has undergone movement to Spec,TopP (at LF)
and, there is no higher projection in the embedded clause, such as CP

Examples are given here (see the works cited for additional properties of these constructions and for important qualifications).

(26) a. enir [užā magalu bāc'ruɬi] **r**-iyxo
mother [boy bread.III.ABS ate].IV **IV**-know
'The mother knows [(that) the boy ate the bread.]

b. enir [užā **magalu** bāc'ruɬi] **b**-iyxo
mother [boy **bread.III.ABS** ate].IV **III**-know
'The mother knows [(that) the boy ate the bread.]

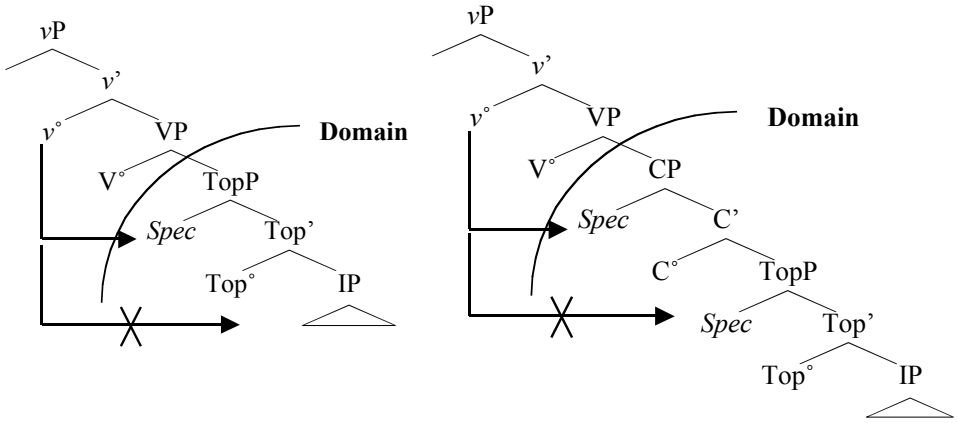
LF enir [**magalu** užā t bāc'ruɬi] **b**-iyxo
TopP (Polinsky & Potsdam 2001 p.584)

The LDA example is (26b); the absolutive topic in the embedded clause is class III and triggers class III agreement on the matrix verb. Note that the embedded clause is finite, and that the embedded absolutive also shows agreement in its own clause, just as it does when there is no LDA (as in (26a)). Thus, there is no reason to think that there is any checking or licensing relation between the embedded topic and the verb it agrees with.

In addition, Polinsky and Potsdam argue extensively that the agreeing element in the embedded clause is in the embedded clause at every level of representation, including LF. Although Tsez is not a scope-rigid language, they show that both overt and covert movement are strictly clause bounded in Tsez. Moreover, they argue that the agreeing element is not an adjunct in the matrix clause, doubled by the NP in the embedded clause, for example, something analogous to the English construction: "I know about John that he left".[15]

The conclusion reached by Polinsky and Potsdam for Tsez, and by the authors cited for the other languages, is that agreement reflects a configuration like head-government or phases, in which the edge of a low Domain 2 is accessible to elements in the next higher Domain. This is sketched in (27). See Bobaljik & Wurmbrand (2005) for more discussion of agreement domains.

(27) a. Agreement with SpecTopP b. Agreement with SpecCP/*SpecTopP



As shown in the trees, the hypothesis is that the highest specifier position is accessible to the matrix verb (or little *v*), the locus of matrix agreement. Thus, an NP in Spec,TopP (at LF) is accessible to the matrix verb in the configuration in (27a), even though it bears no relation to that verb other than locality. (Of course, it is only accessible if it has absolutive case—a non-absolutive topic can not control agreement.)

Further evidence that the key relation is locality is provided by the configuration in (27b). If there is a projection (CP) between the matrix verb and TopP, then an NP in Spec,TopP is no longer accessible to the matrix verb, regardless of its morphological properties. Only the

[15] See Polinsky (2003) for explicit discussion of the differences between this construction and the Tsez-like LDA; see Bruening (2001, 275-279) for a discussion of Passamaquoddy, which has a Tsez-like construction and an adjunct construction. Bruening shows carefully how these may be distinguished.

highest specifier in the lowest agreement domain constitutes the edge, accessible to the matrix clause. Thus, LDA fails in the presence of a *wh*-word or of an overt complementizer. See Polinsky and Potsdam for details; see Bobaljik and Wurmbrand for a theory of agreement domains that extends to truncated complements. See Polinsky (2003) for the evidence that the configuration in (27a) represents the maximal distance that predicate-NP agreement may span, cross-linguistically: the edge of the next domain down.

In sum, then, Tsez quite neatly illustrates the "close-enough" effect. There is no argument for any relation between the matrix verb and the NP it agrees with other than that the NP is accessible (absolutive case, but licensed below) and that it is *close enough* (highest & in domain).[16]

5. *Intervention and agreement in Icelandic*[17]

Recall again the central working hypothesis that I am arguing for:

(5) The finite verb agrees with (the highest) accessible NP in its domain.

Important here is the claim that the notion of "accessible" is defined in terms of m-case. Note that the formulation is "highest accessible", not "highest NP, if accessible." This means that non-accessible NPs are invisible for the computation and ignored. As noted for Icelandic above, if there is no local, accessible NP, the verb takes default agreement, a common situation cross-linguistically. The view presented here contrasts with others in the literature, in particular, with one version of the notion of "defective intervention" discussed in Chomsky (2000 et seq.) and related works. In the following pages, I will outline one of the test cases for defective intervention in Icelandic and argue that it should perhaps be recharacterized as a constraint on movement, not a condition on agreement.

A defective intervention effect is supposed to arise in Icelandic as follows: In the configuration (28a) (where L-R order reflects c-command), the dative NP is inaccessible for agreement, but is nevertheless held to block agreement with the nominative NP. Moreover, agreement becomes possible when the dative NP undergoes movement to a position where it no longer intervenes (at least for some, but not all, types of movement). This is indicated in (28b).

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[16] Although I have (following previous authors) treated the Tsez LDA examples as cases in which the matrix verb bears no syntactic or semantic relation to the NP with which it agrees, beyond simply being close enough, this potentially abuts against one view in the semantic literature. Specifically, LDA seems to be prevalent with intensional predicates, a class of predicates that show *de re/ de se* ambiguities. On some characterizations (Heim 1994), *de re* / *de se* interpretations are distinguished by whether an embedded pronoun is (*de re*) or is not (*de se*) an argument of the matrix verb at LF. If it were to turn out in some way that LDA (26b) examples were correlated with a *de re* interpretation, one might reconsider the premise that the NP is not an argument of the matrix verb (and we would have to reconsider the syntactic arguments to the contrary presented by Polinsky & Potsdam). We might also reconsider the "edge" overlap in the definition of domains. See Sauerland & Percus (2003) for discussion of problems with the movement analysis and for a proposal about *de se / de re* ambiguities that does not treat the embedded pronoun as an argument of the matrix verb under either interpretation.

[17] The most recent, and thorough, discussion of intervention effects in Icelandic that I am aware of is that in Nomura (2005). The discussion in this section merely raises some objections regarding teh standard characterization, and offers what to me seems like a tantalizing hint at a possible direction to pursue, without a concrete analysis. Nomura (2005) offers an analysis which raises challenges to the view sketched below (see also Hiraiwa 2005) to which I am unable to respond within the limited confines of this paper.

(28) a. V/AUX … DAT … NOM ⇨ constrains agreement with NOM
b. DAT V/AUX … t_{DAT} … NOM ⇨ Agreement OK (for some movement types)

The dative NP can't control agreement on the verb, but seems to ***intervene*** to block agreement with a lower potential controller.[18] The data originally discovered to show such an effect involve embedded quirky dative subjects. This is illustrated in (29).

(29) a. Mér ?* virðast / virðist [**Jóni** vera taldir *t* líka hestarnir.]
Me.D seemed.PL / seemed.SG **J.D** be believed.PL like horses.N
'I perceive Jon to be believed to like horses.'

b. Jóni virðast / ?* virðist [t vera taldir t líka hestarnir.]
J.D seemed.pl / seemed.sg be believed.pl like horses.N]
'Jon seems to be believed to like horses.' (Schütze 1997: 108-109)[19]

In (29a), the matrix predicate has a dative experiencer subject. The lower predicate also has a dative experiencer subject; the configuration in (28a) obtains and agreement between the matrix verb and the embedded nominative is blocked. In (29b), the matrix predicate does not take an experiencer. In this configuration, the embedded subject (quirky or not) may move to the matrix clause. (It can be shown that the embedded subject undergoes raising, although this particular example does not exclude the possibility of long-distance topicalization). The lowest trace of the moved dative is its theta-position; it has moved out of the way, instantiating the configuration in (28b), and *permitting agreement between the matrix verb and the embedded nominative.*

I'll refer to this as the Schütze-Watanabe (SW) effect; I believe Watanabe (1993: 417ff) is the first discussion of the effect and Schütze (1997: 107ff.) offers a larger paradigm and a slightly different characterization. Note that both works limit discussion of the intervention effect to embedded quirky datives, not datives categorically (for Watanabe, the effect arises only when both the matrix and embedded subject are quirky datives).

The SW effect provides two related challenges for the view of agreement I am espousing here. First, the nominative NP in (29) must be in the domain of the matrix T/V, since agreement is OK in (b). Second, taking the pair together, it appears that the failure of agreement in (a) should thus be attributed to the position of the dative. Yet such a characterization of the effect is not readily compatible with (5). By (5), a given NP should be accessible or inaccessible, depending on its m-case, and if inaccessible, should be invisible. There are at least two alternatives that one might entertain within the general framework I have suggested, neither of which needs to resort to defective intervention.

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[18] The situation is more complex: Holmberg & Hróarsdóttir (2003) report an effect whereby agreement with a nominative in (28a) is possible, just in case the dative matches the nominative in number (since 3 singular is the default, this effect can only be seen when both are plural). I have no account of this effect and will put it to one side, perhaps at my peril. Another constraint I will put aside is the restriction to 3rd person on nominative objects (nominative objects cannot be 1st or 2nd person). Following Taraldsen (1995), this is sometimes also described as an intervention effect: the verb first attempts to agree with the dative, but agreement fails, the second attempt to agree is then restricted to agreement with 3rd person NPs. See Béjar (2003) for a detailed theory along these lines. Note, though, that the restriction on nominative objects to third person holds also in infinitives (as in (i), see also Boeckx 2003) where there is no agreement, suggesting that the restriction is not an effect of morphological agreement.

(i) Við vonumst til [að leiðast hún / *þið ekki].
we.NOM hope.PL for [to bore.INF she.NOM / you.PL.NOM not]
'We hope not to be bored with her / *you.' (H. Thráinsson, p.c. 2/2004)

[19] Schütze attributes these judgments to H. Thráinsson, but notes that some speakers allow a singular matrix verb in the (b) example.

On the one hand, it may be the case that the embedded quirky dative is not, itself, the intervener in (29a), but rather that the position of the dative is indicative of the presence of a domain boundary in that example that is not present in (29b). Nomura (2005) presents an analysis of the facts in (29) in part along these lines, extending proposals from Wurmbrand (2001) for restructuring. Wurmbrand provides substantial evidence that infinitive complements in German and other languages may contain more or less hidden (functional) structure, in a manner that captures the restructruing/non-restructuring (coherent/incoherent) divide. Importantly, one and the same verb may take either a restructuring (less structure) or non-restructuring (more structure) complement, in the absence of any particular morphological signal of that distinction. However, as shown in Bobaljik & Wurmbrand (2005), Polinsky (2003), only the restructuring infinitive is transparent to domain-based processes such as agreement. Potential support for a domain-based characterization of the facts comes from the observation that there is a strict division between mono-clausal and bi-clausal constructions as regards the distribution of the SW effects.

Contrary to the view that has gained currency in strictly Minimalist proposals (such as Boeckx 2003)[20], there is no evidence that defective intervention effects a general reflection of the configuration in (28). In particular, to my knowledge, intervention effects have never been reported for mono-clausal configurations that reflect (28a)—agreement with the nominative object is always possible, and generally obligatory. Relevant examples are given in (30)-(31).

(30) a. Um veturinn voru **konunginum** gefnar ambáttir
In the.winter **were.PL** the.king.D given slaves.N
'In the winter, the king was given (female) slaves.'

b. Það voru **konungi** gefnar ambáttir í vettur
EXPL **were.PL** king.D given slaves.N in winter
'There was a king given maidservants this winter.' (Zaenen et al, 112-113)

(31) a. Það líkuðu **einhverjum** þessir sokkar
EXPL liked.PL someone.D these socks.N
'Someone liked these socks.'

b. Það voru **einhverjum** gefnir þessir sokkar
EXPL were.PL someone.D given.PL these socks.N
'Someone was given these socks.' (Jónsson 1996: 153)

Even recognizing the variation reported in the literature, (apparent) defective intervention effects are limited to bi-clausal configurations. This, to me, seems to strongly suggest in favour of a domain-based, rather than a strictly configuration based analysis.[21]

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[20] "[F]inite verb agreement with the nominative object is excluded if a Quirky element is within the c-command domain of the verb at Spell-Out ('surface structure')." (Boeckx 2003: 1).

[21] Holmberg & Hróarsdóttir present a more nuanced view than does Boeckx, as just cited. For Holmberg & Hróarsdóttir, the key relation is between T° and the nominative (see also Chomsky 2004). For (30)-(31), they might assume that the dative occupies Spec,TP, with the surface word order the result of V2 movement of the verb to C°. Under this view, T° (or its trace) follows the dative in examples like (30)-(31) and thus the dative does not intervene between T° and the nominative. This perspective fails to discriminate between the acceptable (30)-(31) on the one hand, and the key examples of intervention that Holmberg & Hróarsdóttir give, in (i)-(ii) on the other. To the extent that raising of the dative to Spec,TP is allowed for the dative subjects in (30)-(31), the same raising to Spec,TP is allowed for the dative subject in (i), hence, on there account, the contrast between mono-clausal and bi-clausal constructions is simply not expected.

(i) Það * virðast / virðist **einhverjum manni** [hestarnir vera seinir]
EXPL seem.PL / SG some man.D the.horses.N be slow
'A man finds the horses slow.'

In addition to the problem raised for a strictly configurational view of defective intervention by (30)-(31), there is one other piece of evidence that suggests an alternative perspective on the puzzle. In particular, another set of (again, partially controversial) data suggest that the Dative in (29) might not block agreement, but instead block (A)-movement. ndeed, his would be close to the original interpretation of these effects proposed in Watanabe (1993).

Specifically, I will try to show that the SW effect can find an account as an extension of a well-known (though not fully understood) constraint on A-movement in Icelandic (and to some degree in other Scandinavian languages, especially Swedish) whereby A-movement is order–preserving (see Sells 1998, Williams 2003, Anagnostopoulou 2003, Fox & Pesetsky 2005). I will suggest that there is no intervention effect on agreement, but rather that the unmoved dative blocks (covert) **movement** of the nominative into the domain of the matrix verb. When the dative moves, the nominative is permitted to move higher than it otherwise could. This is schematized here:

(32) a. * V/AUX_{PL} … [DAT … NOM_{PL}]

b. OK DAT V/AUX_{PL} … [t_{DAT}… NOM_{PL}]

I am not in a position to give a full account of Icelandic agreement at this point (in some part this is due to inconsistencies in the judgments reported in the literature). What I will argue, however, is that the effect in (32), while odd under current assumptions about movement (such as the ban on movement into a position occupied by a trace), looks at least at first blush to be the same as a pattern that is independently attested with overt A-movement in Icelandic.

The relevant data set is given in (33), from Sigurðsson (1996, 25-6; on c. see also Jonas 1998, 2001). As Sigurðsson shows, the verb *virðast* 'to seem' is obligatorily a raising verb when it occurs without an experiencer. Example (33a) shows raising of the embedded nominative subject to matrix subject position. There is no possibility of confusing this with V2 topicalization (as there is whenever an NP is in initial position), since the landing site follows the main verb.[22]

(ii) **Manninum** virðast / virðist *t* [hestarnir vera seinir]
the.man.D seem.PL / SG the.horses.N be slow
'The man finds the horses slow.' (Holmberg & Hróarsdóttir 2003: 1000)

It should be noted that while no variation has been reported (so far as I am aware) concerning (30)-(31), the judgment of an intervention effect in (i) is controversial (H. Thráinsson, M. Nomura, personal communcation). For speakers for whom there is no intervention effect in (i), an analysis of (30)-(31) in terms of raising of the dative to Spec,TP is possible; see Nomura (2005) for a concrete proposal.

[22] Although the consensus is that raising (to subject position) across an unmoved experiencer is blocked, but that movement of the experiencer frees up raising, many examples in the literature do not systematically control for V2, and hence there are discrepancies in the reported facts. Compare:

(i) "Icelandic experiencers block raising:" Boeckx (2000, p.361), cf. Holmberg & Hróarsdóttir (2003)
* Ólafur virðist þeim [*t* vera gáfaður] ?
Olaf.N seemed them.D to.be intelligent
'They regard Olaf as intelligent.'

versus

(ii) "the nominative subject of the complement clause can be raised across the dative experiencer, but it has a 'distinctive Topicalization flavor'" Thráinsson (1979, p.426), cf. Jonas (1998, 2001), Boeckx (2003:13)
Haraldur virðist mér [*t* hafa gert þetta vel.]
Harold-N seems me-D have done that well.
'Harold seems to me to have done that well.'

As to the question of whether A' movement feeds agreement (as might be expected on the view advocated here, depending on the formulation of agreement domain), I have found two relevant examples, with opposite judgments: Jonas (2001, p7): yes, Boeckx (2003, p13): no. Clearly, further work is needed.

(33) a. Hafði **Ólafur** virst [*t* vera gáfaður] ?
Has Olaf.N seemed to.be intelligent
'Did Olaf seem intelligent?'

b. * Hafði **Ólafur** **þeim** virst [*t* vera gáfaður] ?
Has Olaf.N them.D seemed to.be intelligent
'Did it seem to them that Olaf was intelligent?'

c. * Hafði **Ólafur** virst **þeim** [*t* vera gáfaður] ?
Has Olaf.N seemed them.D to.be intelligent

d. Hafði **þeim** virst [**Ólafur** vera gáfaður] ?
Has them.D seemed Olaf.N to.be intelligent

However, when the matrix verb takes a dative experiencer as subject, raising across this experiencer is blocked (33b-c). The only possibility for the embedded nominative is to remain low, presumably inside the embedded clause, but in any event in a position below the matrix VP (33d). Now, when the matrix experiencer moves to clause-initial position, raising of the embedded nominative to matrix subject position apparently becomes again acceptable, and triggers agreement, as it is now in the domain of the matrix verb:[23]

(34) a. **Hverjum** hefur **Ólafur** virst t_{wh} [t_O vera gáfaður] ?
who.D has Olaf.N seemed to.be intelligent
'Who has found Olaf intelligent?' (Holmberg & Hróarsdóttir 2003, 1004)

b. Hverjum **hafa** **strákarnir** virst t_{wh} [*t* vera gáfaðir] ?
who.D have.PL the.boys.N seemed to.be intelligent
('Who has found the boys intelligent?') (Holmberg & Hróarsdóttir 2003, 1010)

Note that the landing site of the nominative in (34) is at or above the position of the trace of the matrix dative subject. Thus, schematically, what the raising effect illustrates is the following:

(35) a. * V/AUX_{PL} … DAT … [NOM_{PL}]

b. ^{OK}DAT V/AUX_{PL} … t_{DAT}… [NOM_{PL}]

When the experiencer moves to the matrix Spec,CP (as in (34)), then the nominative from the embedded clause may raise to a position unambiguously in the matrix clause—preceding the participle, and thus moving to or crossing the trace of the matrix experiencer (35b). In this position, the nominative controls agreement on the matrix verb (34b). However, when the matrix experiencer has not undergone V2 movement, then the nominative is stuck in the lower clause (33b-d), and in particular, cannot move across the dative, as illustrated in (35a). This pattern, now seen with overt movement, is of course exactly the pattern that I suggested in (32) above, repeated here, as a (covert) movement account of the Schütze-Watanabe effect:

(32) a. * V/AUX_{PL} … [DAT … NOM_{PL}]

b. ^{OK}DAT V/AUX_{PL} … [t_{DAT}… NOM_{PL}]

[23] Holmberg & Horóarsdóttir attribute these judgments to Sigurðsson; however, Höski Thráinsson (personal communication, 2005) disagrees and reports finding these examples marginal. I am not in a position to resolve the discrepancies among speakers here; see Nomura (2005) and Hiraiwa (2005) for relevant discussion.

Importantly, the raising examples show this with overt movement. When the dative moves to Spec,CP, the nominative in the embedded clause may move to a position that is unambiguously within the matrix clause, a position that is inaccessible to the nominative when the dative hasn't moved, and from which it controls agreement. This is exactly what we need to be able to say to provide a movement based account of the SW effect, and thus, a domain-based account of agreement. The extension here is to the (covert?) movement that would put the NOM object in the domain of / close enough to the matrix verb to allow agreement. Thus, the SW effect can be assimilated to a general effect of order-preservation in A-movement, although we await a fully general theory of order-preservation effects. With Watanabe (1993), and against defective intervention accounts, the domain-based account appears to draw the correct distinctions between mono-clausal and bi-clausal environments, and the agreement possibilities therein.

6. Conclusions and implications

In the preceding pages, I have begun to outline a theory of NP-predicate agreement situated in a post-syntactic morphological component. This component is part of an interpretive procedure that takes the output of the syntactic derivation as its input. In this way, in manner perhaps similar to intonational phrasing, the procedure is sensitive to aspects of syntactic structure (for example, locality is defined over syntactic structures), but the procedure is properly speaking not syntactic. The key evidence for this view was the interaction of agreement with another set of post-syntactic algorithms, namely those responsible for morphological case (as distinct form "syntactic Case", or more accurately, syntactic licensing). Section 3 argued at some length that a set of implicational universals concerning agreement are best stated in terms of morphological case, rather than in familiar syntactic or GF terms. In the remaining sections, I explored some of the consequences of looking at agreement from a morphological perspective. One such consequence was the expectation that locality and morphological accessibility should be both necessary and sufficient conditions for agreement, and indeed, Tsez LDA constructions provide evidence that this is the case. This runs counter to the expectations of syntactic theories of agreement, in which agreement is stated in terms of subcategorization frames or feature-checking. Finally, I made some tentative suggestions about one class off "defective intervention" effects, of the kind used to support a feature-checking analysis of agreement, though clearly much work remains.

As a final remark about the context of these results, it is worth considering their possible implications for a theoretical model couched in feature-checking, such as in Chomsky's *Minimalist Program* (Chomsky 1995). Especially within the more recent writings in this framework (such as Chomsky 2001, 2004), subject-verb agreement is presented as the canonical example of the overt manifestation of the Probe-Goal feature-checking mechanism that lies at the core of the formalization of syntactic dependencies. The claim in the present paper is that such a probe-Goal mechanism, while perhaps adequate for syntactic licensing, does not properly characterize the relation which finds expression as morphological agreement. Agreement is orthogonal to, and in certain cases such as Icelandic nominative objects, at cross-purposes with, the basic syntactic licensing mechanisms that regulate the distribution of NPs. Thus agreement, like case, must be discarded as an independent grounding for a theory of syntactic licensing that is couched in terms of feature-checking. Without such grounding, casting the motivation for movement in terms of feature-checking risks a certain circularity: all movement is driven by features, and the only means to detect such features is the fact that movement happens. Case theory of the 1980s was an elegant effort to provide such independent motivation for movement in terms of an independently observable property—namely case—but this did not pan out. In the 1990s, agreement has replaced case as the independent

motivator of the features whose checking drives A-movement, but I submit that like case, and largely for the same reasons, agreement fails to provide the independent evidence for feature checking necessary to avoid the circle. Proponents of a feature-driven theory will, if the observations above prove sufficiently general, have to look yet elsewhere.

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