

# On the proper definition of closeness Does Defective Intervention Exist?

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## 1 Introduction: the problem

Chomsky (2000) claims that under certain circumstances (which will be made precise in section 2.4) an Agree relation between a probe and a potential goal can be blocked by what he refers to as defective interveners, intervening potential goals that are inactive in the sense that all their features are valued.

- (1) *Defective Intervention* (Chomsky 2000:123):
- (i) both  $\gamma$  and  $\beta$  match probe P in [... P [...  $\gamma$  ...  $\beta$  ...]]];
  - (ii)  $\gamma$  c-commands  $\beta$ ;
  - (iii)  $\gamma$  is inactive, and;
  - (iv)  $\gamma$  blocks the Agree relation between P and  $\beta$ .

The claim is based on Icelandic, where agreement between the finite verb (i.e. the inflectional node I) and the nominative argument is sometimes blocked by an intervening dative argument, which according to Chomsky must have its dative feature valued and therefore be inactive by the time that I is merged into the structure. This is illustrated by example (2) taken from Holmberg and Hróasðóttir (2004); in this example the plural nominative phrase cannot trigger plural agreement on the finite verb, which must therefore appear with the default value singular.

- (2) það virðist einhverjum manni hestarnir vera seinir.  
there seems<sub>sg</sub> some man<sub>dat</sub> the horses<sub>nom/pl</sub> be slow  
'The horses seem to some man to be slow.'

However, this article will argue that the dative phrase, which acts a quirky subject, is actually still active at the time that I starts probing for a goal, and hence that we are not dealing with defective intervention in the sense of (1).<sup>1</sup> From this it will follow that in languages that do not have quirky subjects, the 'defective' intervention effect does not arise. This is illustrated by the acceptability of Dutch examples like (3a), which is based on an actual occurring sentence found on the internet and in which the finite verb and the nominative argument do agree in number despite the presence of the intervening dative phrase *Jan/hem*. That Agree is not blocked by the dative phrase in Dutch is also clear from the fact that the nominative phrase can be moved across the dative phrase into the regular subject position of the clause,

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<sup>1</sup> Holmberg and Hróasðóttir (2004) adopt a different definition of defective intervention (which they erroneously attribute to Chomsky): an intervener  $\gamma$  is defective if it cannot value the unvalued features of P but nevertheless blocks agreement between P and some other potential goal  $\beta$ . Under this definition the quirky subject still is a defective intervener since it does not trigger agreement on the finite verb. Neither Chomsky nor Holmberg and Hróasðóttir discuss the question how nominative case is licensed on the DP *hestarnir* 'the horses'. I refer to Woolford (to appear) for an interesting proposal concerning case assignment in quirky subject constructions in Icelandic and Faroese, which differ in that in the former language the non-dative argument is assigned nominative case whereas in the latter language it is assigned accusative case.

as in (3b); the Last Resort Condition on movement implies that, in order to license this movement of the subject, I must enter into an Agree relation with the nominative and, thus, that the dative phrase does not block this relation in Dutch.

- (3) a. Daarom lijken Jan/hem de grafieken niet te kloppen.  
 Therefore seem<sub>pl</sub> Jan/him<sub>dat</sub> the charts<sub>nom/pl</sub> not to be-correct  
 ‘Therefore, the charts seem to be wrong to /Janhim.  
 b. Daarom lijken de grafieken Jan/hem *t*<sub>de grafieken</sub> niet te kloppen.

The discussion in this article will ultimately lead to a slightly simplified version of the definition of closeness entertained by Chomsky (2000), and will provide a detailed analysis of the agreement facts in Icelandic and Dutch constructions with a dative intervener.

## 2 Definitions of closeness in the *principles-and-parameters* framework

### 2.1 Rizzi’s (1990) Relativized Minimality

One of the main achievements of the P&P framework is probably Rizzi’s Relativized Minimality (RM). Phrased in more modern terms, RM claims that an Agree relation between a probe P and a goal  $G_1$  cannot be established when there is an intervening potential goal  $G_2$  that c-commands  $G_1$ . Given the Last Resort Condition on movement, this implies that it is not possible to move  $G_1$  across the intervening potential goal  $G_2$  into the local domain of P:

- (4) Relativized Minimality:  $*[G_1 P [\dots G_2 \dots [\dots t_{G_1} \dots]]]$

This means that we can account for intervention effects by postulating that a probe attracts its closest potential goal, where *closeness* is defined as in (5) by taking recourse to the notion of c-command only.

- (5)  $\gamma$  is *closer to* P than  $\beta$  in  $[\dots P [\dots \gamma \dots \beta \dots]]$  iff  $\gamma$  c-commands  $\beta$ .

Unfortunately, other developments in the theory at the time Rizzi developed his RM strongly suggested that this maximally simple definition of closeness could not be maintained. The following subsections therefore review and discuss the subsequent definitions that have been proposed in Chomsky’s minimalist work.

### 2.2 Chomsky (1995:ch.2&3)

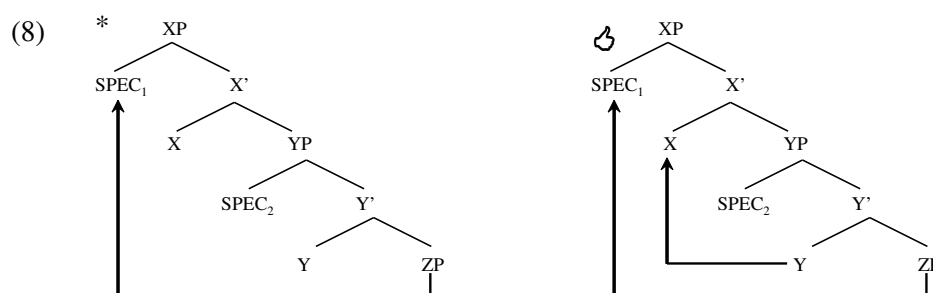
After Pollock (1989) introduced the split-INFL hypothesis, according to which the inflectional node INFL actually consists of two separate functional heads, T and AGR<sub>S</sub>, it became clear very soon that also an AGR<sub>O</sub> head had to be postulated which could act as a probe for the accusative object; cf. (6a) adapted from Chomsky (1991). Assuming that the two AGR-projections each have an unvalued case feature that probes for a corresponding case feature on the arguments of the verb, it follows that Universal Grammar should allow derivations in which the subject and the object are moved into respectively SpecAGR<sub>S</sub>P and SpecAGR<sub>O</sub>P.

- (6) a.  $[_{AGR_S} \dots AGR_S [_{TP} \dots T [_{AGR_S} \dots AGR_O [_{VP} S V O]]]]$   
 b.  $[_{AGR_S} \dots AGR_S [_{TP} \dots T [_{AGR_S} O AGR_O [_{VP} S V t_O]]]]$   
 c.  $[_{AGR_S} S AGR_S [_{TP} (t'_S) T [_{AGR_S} O AGR_O [_{VP} t_S V t_O]]]]$

However, the derivation in (6) violates RM in (4) twice: once by movement of the object into SpecAGR<sub>O</sub>P across the base position of the subject, and once by the subsequent movement of the subject into SpecTP/AGR<sub>S</sub>P across the shifted position of the object. Chomsky (1995:ch.3) tackled this problem by claiming that these violations of RM are allowed provided that one additional condition is met: the target position of the movement and the position of the intervener must be equidistant from the probe's goal, that is, they must be contained in the same minimal domain of some head or head chain. Chomsky thus added clause (7b) to Rizzi's original definition of closeness in (5).

- (7)  $\gamma$  is *closer to*  $\alpha$  than  $\beta$  in  $[\alpha P [\dots \gamma \dots \beta \dots]]$  iff:  
 (a)  $\gamma$  c-commands  $\beta$ , and;  
 (b)  $\alpha$  and  $\gamma$  are not in the same minimal domain.

The specifics of the definition of the notion minimal domain proposed in Chomsky (1995:ch.3) need not concern us here; for our present purposes it suffices to say that when the intervening element is the specifier of H, clause (7b) does not hold when H is moved up into the head position that has the target position of the movement as its specifier. This means that, if Spec<sub>2</sub> in (8) is a potential intervener, movement of ZP into Spec<sub>1</sub> is allowed provided that head Y undergoes head-movement into X, as in the right-hand structure.



From the definition of closeness in (7) it now follows that the derivation in (6) is ungrammatical; object movement is possible only if the verb V moves across the base position of the subject into AGR<sub>O</sub>, and the subsequent movement of the subject is possible only if the V+AGR<sub>O</sub> complex moves across the derived position of the object into T (or AGR<sub>S</sub>), as in (9).

- (9) a.  $[_{AGR_S} \dots AGR_S [_{TP} \dots T [_{AGR_S} \dots V+AGR_O [_{VP} S V O]]]]$   
 b.  $[_{AGR_S} \dots AGR_S [_{TP} \dots T [_{AGR_S} O V+AGR_O [_{VP} S t_V t_O]]]]$   
 c.  $[_{AGR_S} S AGR_S [_{TP} (t'_S) T+ V+AGR_O [_{AGR_S} O t_{V+AGR_O} [_{VP} t_S t_V t_O]]]]$

Chomsky's proposal considerably complicated Rizzi's original formulation of RM in (4), but it seemed that this complication paid off as it derived without further ado Holmberg's Generalization (henceforth: HG), according to which object shift can take place only if the verb undergoes V-to-I movement.

### 2.3 Chomsky (1995:section 4.10)

In later work, Chomsky (1995:section 4.10) argued that the postulation of the AGR-projections in (6) and (9) is problematic for conceptual reasons as they do not introduce features into the structure (the case and  $\phi$ -features clearly being features on the verb) and are thus mainly postulated in order to make landing sites available for the shifted object and the subject. He therefore proposed to eliminate the AGR-projections and to attribute the

accusative case features to a light verb  $v$ , which is also assumed to introduce the external argument of the verb (cf. Hale and Keyser 1993). As a result the derivation of a transitive clause in the simple present/past tense is as given in (10): first the object is attracted by the case features on  $v$  and placed in an outer specifier of  $vP$ , and subsequently the subject is moved into SpecIP.

- (10) a.  $[_{IP} \dots I [_{vP} S v [_{VP} V O]]]$   
 b.  $[_{IP} \dots I [_{vP} O [_{vP} S V+v [_{VP} t_V t_O]]]]$   
 c.  $[_{IP} S I [_{vP} O [_{vP} t_S V+v [_{VP} t_V t_O]]]]$

In this derivation the movement of the object crosses the base position of the subject, and the subsequent movement of the subject into SpecIP crosses the object in its shifted position. However, the definition of closeness in (11) that Chomsky adopts at this stage of the theory does allow these movements. This definition differs from the one in (7) in that it has the additional clause in (11c).

- (11)  $\gamma$  is *closer to*  $\alpha$  than  $\beta$  in  $[\alpha P [\dots \gamma \dots \beta \dots]]$  iff:  
 (a)  $\gamma$  c-commands  $\beta$ , and;  
 (b)  $\alpha$  and  $\gamma$  are not in the same minimal domain, or;  
 (c)  $\gamma$  and  $\beta$  are not in the same minimal domain.

Consider again the derivation in (10). If V-to- $v$  applies, as in (10b), the object and the subject are both part of the minimal domain of the chain  $(V, t)$  and, consequently, (11c) allows movement of the object across the subject into the outer specifier of  $v$ . Furthermore, on the plausible assumption that the inner and the outer specifier of  $v$  are part of the minimal domain of  $v$ , clause (11c) will also allow the movement of the subject into SpecIP across the shifted object into the outer specifier of  $v$ , as in (10c). From this it follows that V-to-I movement is not needed to license the movement of the subject in (10c), and Chomsky concluded from this that we cannot derive HG from locality theory in an AGR-less theory.

Perhaps, this conclusion that HG cannot be derived from locality theory was somewhat premature given that it follows from the newly introduced clause (11c), which was actually not independently motivated at the time. If we drop this clause, the subject movement in (10c) is excluded and HG would follow again, as was amply demonstrated by Kitahara (1997:2.3); cf. Broekhuis (2000) for a somewhat different proposal that has the same effect. However, important evidence in favor of clause (11c) is provided in Chomsky (2000), which will be reviewed in the next subsection.

## 2.4 Chomsky (2000)

The fact that we did not invoke clause (11b) in our discussion of the derivation in (10) suggests that this clause is superfluous. Furthermore this clause refers to the landing site of movement, which is rather unnatural in the Agree-based theory developed in Chomsky's (2000), in which movement is merely an epiphenomenon of Agree, because Agree only involves the relation between a probe and its potential goal(s). It therefore does not come as a big surprise that Chomsky (2000) drops this clause. He maintains, however, that clause (11c) is part of the definition of closeness, and what is more, unlike in his earlier work, he provides important empirical evidence in favor of this claim. The core of the argument in favor of (11c) is constituted by a set of complex agreement facts in Icelandic quirky subject constructions, which have received a lot of attention in the more recent literature; some important contributions are Jónsson (1996), Sigurðsson (1996), Schütze (1997), Chomsky

(2000), and Holmberg and Hróasdóttir (2004). First consider the examples in (12), taken from Jónsson (1996:153).

- (12) a. það líkuðu einhverjum þessir sokkar.  
 there liked<sub>pl</sub> somebody<sub>dative</sub> these socks<sub>nom/pl</sub>  
 ‘Somebody liked these socks.’  
 b. það voru einhverjum gefnir þessir sokkar.  
 there were<sub>pl</sub> somebody given these socks<sub>nom/pl</sub>  
 ‘Somebody was given the socks.’

The examples in (12) show that the finite verb may agree with the nominative argument in quirky subject constructions when the dative and nominative are co-arguments, that is, arguments of the same verb. These examples contrast sharply with those in (13), taken from Holmberg and Hróasdóttir (2004:654), which show that agreement is blocked when the dative and the nominative are *not* co-arguments: in these quirky subject constructions, the dative argument is selected by the matrix verb, while the nominative is the subject of respectively a predicatively used adjectival phrase and an infinitival clause.<sup>2</sup>

- (13) a. það finnst/\*finnast einhverjum stúdent tölvurnar ljótar.  
 there find<sub>sg</sub>/find<sub>pl</sub> some student<sub>dat</sub> the computers<sub>nom/pl</sub> ugly  
 ‘Some student considers the computers ugly.’  
 b. það virðist/\*virðast einhverjum manni hestarnir vera seinir.  
 there seem<sub>sg</sub>/seem<sub>pl</sub> some man<sub>dative</sub> the horses<sub>nom/pl</sub> be slow  
 ‘The horses seem to some man to be slow.’

The judgments on the examples in (13) are, of course, exactly what we expect when we assume that Agree is only possible under ‘closest’ c-command: the dative argument asymmetrically c-commands the nominative argument and is therefore a closer potential goal for the number feature on I. The examples in (12), on the other hand, show that the MLC cannot be fully reduced to ‘closest’ c-command since this would incorrectly predict agreement between the finite verb and the nominative argument also to be blocked in these examples. The facts in (12) therefore support some version of clause (11c).

Now consider the examples in (14), which are again taken from Holmberg and Hróasdóttir (2004:653/5). These examples show that the intervention effect in (13) disappears when the dative argument is moved into clause-initial position: in examples like (14) agreement between the finite verb and the nominative argument is possible. I will discuss the fact that agreement is optional in (14a) in section 2.7.

- (14) a. Mér finnst/finnast *t<sub>mér</sub>* tölvurnar ljótar.  
 me<sub>dat</sub> find<sub>sg</sub>/find<sub>pl</sub> the computers<sub>nom/pl</sub> ugly  
 ‘I consider the computers ugly.’  
 b. Mér virðist/virðast *t<sub>mér</sub>* hestarnir vera seinir.  
 me<sub>dat</sub> seem<sub>sg</sub>/seem<sub>pl</sub> the horses<sub>nom/pl</sub> be slow  
 ‘It seems to me that the horses are slow.’

Chomsky accounts for the data in (12) to (14) by adopting the two assumptions in (15). Statement (15a), which was motivated earlier in Jónsson (1996:146), expresses that quirky

<sup>2</sup> Holmberg and Hróasdóttir (2004:654) note that the finite verb does appear in the plural form when both the dative and the nominative are plural. I will put this aside for the moment but return to it in section 2.7. This paper will not discuss the fact that the finite verb cannot agree with a first or second person pronoun; the first and second person pronouns are normally avoided in this construction (Sigurðsson: 1996:2.5; Jónsson 1996:153, fn.36; Sigurðsson and Holmberg 2006).

(dative) subjects have an additional structural case feature; this makes them into a potential goal for the nominal features on I, as a result of which it can act as an intervener for agreement and move into SpecIP without violating the Last Resort Condition. Since Chomsky assumes that the movement of the dative phrase into clause-initial position is A-movement, the acceptability of (14) follows from assumption (15b).

- (15) a. Quirky Case is ( $\theta$ -related) inherent Case with an additional structural Case feature (Chomsky 2000:127).  
 b. A-movement traces are “invisible” to the probe-associate relation (Chomsky 2000:131).

Clause (15b) is supported by example (16), which is again taken from Holmberg and Hróasðóttir (2004) and which shows that traces of A'-movement do *not* void the intervention effect; cf. section 2.7 for relevant discussion.<sup>3</sup>

- (16) Hvaða stúdent<sub>i</sub> veist þú að finnst/\*finnast t<sub>i</sub> tölvurnar ljótar?  
 which student<sub>dative</sub> know you that find<sub>sg</sub>/find<sub>pl</sub> the computers ugly  
 ‘Which student do you know considers that computer ugly?’

The discussion above clearly shows that the definition of closeness cannot be fully reduced to ‘closest’ c-command, and must take recourse to the notion of minimal domain, as in (17b), and must also include an additional restriction on the intervening element, as in (17c). Observe that (17b) and (17c) are coordinated by means of the disjunction *or*, because (17b) accounts for the acceptability of agreement in (12), and (17c) for the acceptability of agreement in (14); agreement between the finite verb and the nominative argument is only blocked in quirky subject constructions when both clauses apply.

- (17)  $\gamma$  is *closer to* probe P than  $\beta$  in [... P [...  $\gamma$  ...  $\beta$  ...]] iff:  
 (a)  $\gamma$  c-commands  $\beta$ , and;  
 (b)  $\gamma$  and  $\beta$  are not in the same minimal domain, or;  
 (c)  $\gamma$  is not an A-movement trace.

The conclusion that we need clause (17b) (= (11c)) is important as it implies that Chomsky (1995:section 4.10) was right after all in claiming that HG cannot be derived from locality theory and that we have to find some account for it by taking recourse to factors external to the computational system; cf. e.g. Holmberg 1999, Chomsky 2001, Fox and Pesetsky 2005, Broekhuis in prep, and many others for alternative suggestions.

## 2.5 Intervening dative phrases in Dutch: the proper definition of closeness

Chomsky (2000) has proposed that a noun phrase must be active in the sense that it has at least one unvalued formal feature in order to act as a potential goal for some higher probe. Since the shifted object in (10b) is attracted by the case feature on  $v$ , it has its case feature valued by definition so that we would expect that it can no longer enter into an Agree relation with I. The null hypothesis therefore should be that it does not block the Agree relation between I and the subject either. If so, clause (17c) should be replaced by the clause (18c). The notion *active* in this clause is defined as in (19).

<sup>3</sup> Holmberg and Hróasðóttir (2004) claim that when the intervening dative argument is a wh-trace, the intervention effect holds for Agree but not for movement. This is of course surprising if Agree is a prerequisite for movement. Their claim is weakened, however, by the fact that agreement *is* possible in the crucial example; cf. their fn.8 and the appendix to their article.

- (18)  $\gamma$  is *closer to* probe P than  $\beta$  in [... P [...  $\gamma$  ...  $\beta$  ...]] iff:
- (a)  $\gamma$  c-commands  $\beta$ , and;
  - (b)  $\gamma$  and  $\beta$  are not in the same minimal domain, and;
  - (c)  $\gamma$  is active.
- (19) A goal  $\gamma$  is active, iff:
- (a)  $\gamma$  is the head of a (possibly singleton) A-chain, and;
  - (b)  $\gamma$  has an unvalued formal feature.

It is important to note that (18) makes use of conjunctions only, which should be considered a considerable improvement, as Rizzi (1990) has argued that the disjunction *or* should be avoided in formalizations for conceptual reasons.

Disjunctive statements are intrinsically unsatisfactory. Admitting a disjunctive formulation amounts to admitting that the nature of the generalization is not understood; if I write a principle saying that either property A or property B must be fulfilled, I am implicitly admitting that I do not understand the nature of the formal or functional equivalence holding between A and B. Of course a disjunctive formulation can turn out to be extremely productive, and even illuminating at certain stages of the comprehension of an issue [...] but the desideratum of avoiding disjunctions is an important one, even in the face of significant descriptive success. (Rizzi 1990:76-77)

Nevertheless, Chomsky (2000:123, 127-8) explicitly denies clause (18c) by referring to Icelandic examples like (13), where a quirky subject blocks agreement with the lower nominative argument. This blocking effect is, however, a typical property of the quirky subject construction, and does not occur in comparable examples in Dutch and German. First consider the examples in (20). Since the dative argument *Peter* is preceded by adverbial material we may safely conclude that it is not in subject position, and hence occupies some position intervening I and the nominative argument. The fact that the verb and the nominative phrase agree in person and number illustrates clause (18b): when the dative and the nominative argument are co-arguments, the former cannot block agreement with the latter. These examples are therefore completely parallel to the Icelandic ones in (12).

- (20) a. Daarom bevalen waarschijnlijk Jan die sokken beter.  
 therefore please<sub>pl</sub> probably Jan<sub>dat</sub> those socks<sub>pl</sub> better  
 'Therefore, those socks will probably please Jan more.'
- b. Straks worden waarschijnlijk Jan die sokken aangeboden.  
 later are<sub>pl</sub> probably Jan<sub>dat</sub> those socks<sub>pl</sub> prt-offered  
 'Those socks will probably be offered to Jan later.'

That agreement between I and the nominative argument is possible when the nominative argument and the dative phrase are co-arguments is also evident from the fact illustrated by (21) that the nominative argument can be moved across the dative argument into the regular subject position (SpecIP); cf. e.g. Lenerz (1977), Koster (1978), Den Besten (1985) and Broekhuis (1992) for extensive discussions of the word order alternations in these examples.

- (21) a. Daarom bevalen <die sokken> Jan <die sokken> beter.  
 therefore please those socks Jan<sub>dat</sub> better  
 'Therefore, those socks please Jan more.'
- b. Straks worden <die sokken> Jan <die sokken> aangeboden.  
 later are those socks Jan<sub>dat</sub> prt-offered  
 'Those socks will be offered to Jan later.'

Now consider the examples in (22), in which the dative argument is selected by the raising verb *lijken* ‘to seem’, whereas the nominative argument is generated as the subject of a more deeply embedded predicate, respectively the predicatively used adjectival phrase *snel genoeg* ‘fast enough’ and the infinitival clause *te veel te drinken* ‘to drink too much’. These examples show that the dative does not block the Agree relation that establishes number agreement between the verb and the nominative, which is also clear from the fact that the nominative may be moved across the dative into the regular subject position of the clause.

- (22) a. Daarom leken niemand die computers snel genoeg.  
 Therefore seemed<sub>pl</sub> nobody<sub>dat</sub> those computers fast enough  
 ‘Therefore those computers seemed fast enough to nobody.’  
 a’. Daarom leken die computers niemand snel genoeg.  
 b. Soms lijken mij die jongens te veel te drinken.  
 sometimes seem<sub>pl</sub> me<sub>dat</sub> those boys too much to drink  
 ‘Sometimes those boys seem to me to drink too much.’  
 b’. Soms lijken die jongens mij te veel te drinken.

The Dutch examples in (22) are similar to the Icelandic ones in (13) in that the dative argument and the nominative argument are not co-arguments. If Chomsky is correct in claiming that in such configurations the dative phrase blocks agreement between I and the nominative argument, we wrongly predict (i) that the finite verb does not agree with the nominative argument in person and number features, and (ii) that the movement of the nominative into SpecIP across the dative argument is blocked. We must therefore conclude that Icelandic and Dutch differ in that the dative phrases can only invoke intervention effects in the former language.

The difference between the Icelandic examples in (13) and the Dutch examples in (22) can be readily accounted for by taking recourse to the c-clause of the definition of closeness in (18). First consider Dutch. By the time that I is merged, the unvalued case feature of the dative argument is already valued, and, consequently, this argument is not active when I probes for a goal. Since the dative argument is not active, the closest potential goal of I is the nominative argument, which accounts for the fact that the finite verb agrees with the nominative argument and that the latter can be moved into SpecIP. Icelandic crucially differs from Dutch in having a dative argument that functions as a quirky subject. According to (15a) quirky subjects have a structural case feature that is accessible to I, so that we must conclude that the dative argument is still active by the time that I is merged. This makes the dative into a closer goal for I than the nominative argument, and it is therefore predicted that it will block agreement between I and the nominative phrase, unless it is moved into SpecIP.

## 2.6 A timing problem

Before concluding the discussion, I want to point out that the discussion above is slightly complicated by the following timing problem: since the *in-situ* quirky subject remains to block agreement between I and the lower nominative argument after its structural case feature is valued by I, we must assume that it is not inactivated before I has become inactivated as well. Similar timing issues arise in the Minimalist Inquiry framework where it is explicitly claimed that “[t]he probe-goal relation must be evaluated for the Minimal Link Condition at the strong-phase level [...]” (Chomsky 2001:27). However, this solution does not work for the Dutch constructions in (20) to (22) because the verbs involved in these constructions are unaccusative, and the light verb associated with unaccusative verbs is assumed not to induce



a strong phase: consequently, the dative argument would still be active when I is merged to the structure and thus expected to block agreement between I and the nominative argument. An alternative possibility would be to assume that features valued by a probe P are inactivated at the moment that P's features are all valued and P is consequently inactivated itself. Following Chomsky's (2000:132) claim in (23), we may assume that inactivation of P must take place before the structure headed by P is merged with some higher head.

- (23) Properties of the probe [...] must be exhausted before new elements of the lexical subarray are accessed to drive further operations.

This would imply that the valued case feature on the internal arguments is inactivated before  $\nu$ P is merged with I. Consequently, the dative arguments in the Dutch examples in (20) to (22) would be inactive when I starts probing for a goal.

## 2.7 More Icelandic agreement facts

The discussion above has argued that agreement between the verb and the nominative is blocked in Icelandic examples like (13a), repeated here as (24a), due to fact that the intervening dative is still active by the time that I probes for a goal. As was already indicated in footnote 2, the discussion so far has ignored one important problem, namely that there are also examples in which the dative and the nominative are not co-argument, but agreement can nevertheless occur across the intervening dative argument. An example of this is given in (24b), again taken from Holmberg and Hróasðóttir (2004), in which the agreement is optional.

- (24) a. það finnst/\*finnast einhverjum stúdent tölvurnar ljótar.  
           there find<sub>sg</sub>/find<sub>pl</sub> some student<sub>dat</sub> the computers<sub>nom/pl</sub> ugly  
           ‘Some student considers the computers ugly.’  
       b. það finnst/finnast mörgum stúdentum tölvurnar ljótar.  
           there find<sub>sg</sub>/find<sub>pl</sub> many students<sub>dat</sub> the computers<sub>nom/pl</sub> ugly  
           ‘Some student considers the computers ugly.’

Although Holmberg and Hróasðóttir (2004) do not extensively discuss example (24b), they suggest in their footnote 6 that the agreement is only possible when the dative and the nominative argument have the same number marking. Given that the singular is the default marking of the verb, this singles out as special the case in which both the dative and the nominative are plural; only in this case can the finite verb be marked as plural. This accounts for the contrast between (24a) and (24b).

A problem for Holmberg and Hróasðóttir's proposal, however, is that there are also cases that satisfy their criterion, but in which agreement is nevertheless impossible. This is illustrated by the examples in (25a) taken from Kučerová (to appear).

- (25) það finnst/\*finnast fáum börnum tölvurnar ljótar  
       There find<sub>sg</sub>/find<sub>pl</sub> few children<sub>dat</sub> the computers<sub>nom/pl</sub> ugly  
       ‘There are few children that find the computers ugly.’

The hypothesis put forth by Kučerová is that the intervention effect is lifted when the dative phrase has undergone object shift. This immediately accounts account for the following facts. First, it accounts for the impossibility of agreement in (24a) and (25) given that object shift is not possible with noun phrases containing ‘weak’ quantifiers like *einhverjum* ‘some’ and *fáum* ‘few’. Secondly, given that object shift is normally optional in the sense that it depends on the information structure of the clause, we derive that the plural marking on the verb in

(24b) is optional, *and* that it affects the interpretation of the clause. When the verb appears in the singular, the dative object *mörgum stúdentum* ‘many students’ must be in its non-shifted position and receive a non-specific interpretation as a result: it refers to a group of students that is not further specified. However, when the verb appears in the plural, the dative object must be in its shifted position and consequently it receives a specific interpretation: the dative refers to a group of students familiar from the discourse. Finally, it is predicted that the placement of the dative with respect to the adverb will determine whether agreement will or will not arise. This is indeed the case: when the dative follows the adverb *alltaf* ‘always’ in (26) the finite verb must be singular.

- (26) a. það finnst alltaf þremur börnum tölvurnar ljótar.  
           There find<sub>sg</sub> always three children the computers<sub>nom/pl</sub> ugly  
       b. það finnst (\*alltaf) þremur börnum tölvurnar ljótar.  
           There find<sub>sg</sub> always three children the computers<sub>nom/pl</sub> ugly

Kučerová’s proposal is descriptively successful but incompatible with the conclusions reached earlier in this paper. Since the dative object functions as a quirky subject, which can actually occur in the subject position, we must assume that even after object shift it still has an unvalued feature which can be probed by I. Consequently, we still expect it to behave as an intervener blocking agreement. The result can, however, be maintained in the present proposal by assuming that the movement of the quirky subject is not object shift but targets the subject position. A conclusive argument for assuming this is that the movement of the quirky subject does not obey Holmberg’s Generalization: example (27), cited from Kučerová’s (to appear) article, shows that unlike object shift, the quirky subject can be moved across the main verb.

- (27) það voru konugi gefnar ambáttir í vinter.  
       EXPL were king<sub>dat</sub> given slaves in winter  
       ‘A king was given female slaves in winter.’

Given the fact that Icelandic is a verb-second language, the claim that the quirky subject targets the subject position amounts to saying that after this movement, the relevant structure is as indicated in (28).

- (28) [<sub>CP</sub> það V+I+C [<sub>IP</sub> DP<sub>dat</sub> t<sub>V+I</sub> [ ... t<sub>dat</sub> ... DP<sub>nom</sub>]]]

This structure makes clear that the head of the A-movement chain (DP<sub>dat</sub>, t<sub>dat</sub>) does *not* intervene between the I-position and the nominative argument, and, consequently, the definitions in (18) and (19) correctly predict agreement to be possible. The fact that the dative *appears* to intervene between I and the nominative argument is due to the fact that the Verb-second moves the I+V amalgam into the C-position. For completeness’ sake, note that it is generally assumed that the expletive *það* does not occupy the subject position but SpecCP; like German *es*, but unlike English *there*, it functions as a kind of expletive topic (see e.g. Vikner 1990, Holmberg and Platzack 1995 and Vangsnes (2002). This means that SpecIP is indeed available as a landing site for the quirky subject.

Finally, consider again the examples in (14), repeated here as (29). Chomsky’s analysis, which was reviewed in section 2.4, presupposed that the dative pronoun is moved into the subject position, SpecIP. Given Zwart’s (1997) claim that subject-initial clauses in languages like Dutch and German can be IPs, this is indeed a plausible option for the quirky subjects in (29) as well. However, we clearly cannot rule out the possibility that the dative pronoun occupies the topic position SpecCP. If we assume that both options are available, the

contrast between (14a) and (14b) will fall in place. When the dative pronoun occupies SpecIP, the trace  $t_{mér}$  is an A-movement trace, which does not count as an active intervener according to the definitions in (18) and (19), and agreement between the verb and the nominative argument is predicted to be possible. However, when the dative pronoun is topicalized, the trace  $t_{mér}$  is an A'-movement trace, which does count as an active intervener, and, as a result, agreement between the verb and the nominative argument will be blocked in this case.

- (29) a. Mér finnst/finnast  $t_{mér}$  tölvurnar ljótar.  
 me<sub>dat</sub> find<sub>sg</sub>/find<sub>pl</sub> the computers<sub>nom/pl</sub> ugly  
 'I consider the computers ugly.'  
 b. Mér virðist/virðast  $t_{mér}$  hestarnir vera seinir.  
 me<sub>dat</sub> seem<sub>sg</sub>/seem<sub>pl</sub> the horses<sub>nom/pl</sub> be slow  
 'It seems to me that the horses are slow.'

The above proposal accounts for the (apparent) optionality of agreement in the examples in (29). A problem that still stands is the fact that in examples like (16), repeated here as (30), agreement is blocked. The reason for this is that long *wh*-movement *must* skip SpecIP since this would otherwise lead to an illicit COMP-trace configuration. The intervening trace is therefore an A'-movement trace, and the intervention effect is correctly predicted to arise.

- (30) Hvaða stúdent<sub>i</sub> veist þú að (\* $t_i$ ) finnst/\*finnast  $t_i$  tölvurnar ljótar?  
 which student<sub>dative</sub> know you that find<sub>sg</sub>/find<sub>pl</sub> the computers ugly  
 'Which student do you know considers that computer ugly?'

If the account of the optionality of agreement in (29) is on the right track, it may provide additional evidence against Kučerová's claim that agreement is licensed by object shift. In order to see this we have to adopt two additional claims: (i) object shift is triggered by the case feature on the light verb  $v$  and involves movement of the object into the left edge of the  $v$ P-phase, and (ii) A'-movement of objects into SpecCP proceeds via the phase edge. The second claim implies that topicalization of the dative pronouns in (29) must be preceded by object shift. Kučerová's proposal therefore predicts that agreement is obligatory in (29). Since phase theory does not force topicalization of the quirky subject to be preceded by movement into the subject position, the current proposal correctly predicts the observed optionality of agreement.

### 3 Conclusion

This article has discussed the complicated Agreement patterns in Icelandic quirky subject constructions and concluded that the difference between Icelandic and Dutch is due to the fact that the quirky subject is not defective in the sense intended by Chomsky (2000); the quirky subject, but not the corresponding dative phrase in Dutch, still has an active feature by the time that that I is merged. In the end, therefore, it turns out that defective intervention in the sense of (1) does not exist.

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