

Rethinking phase-based Minimality: Scrambling does not obviate intervention in Japanese object honorification

1. Introduction

The aim of this squib is to point out a problem that arises when the theory of Agree-Minimality as proposed by Chomsky (2001) in light of Icelandic long-distance agreement facts, is applied to Japanese *object honorification* (OH). Specifically, in Japanese OH agreement, moving an intervener out of the probe's domain does not allow the probe to Agree with a lower goal in the same way that is familiar with Icelandic.

Japanese OH agreement displays a hierarchy effect.¹ An internal argument denoting a person that is socially superior to the speaker (SSS) can trigger OH on a simple transitive verb (see (1-a)).² However, only the dative (DAT) internal argument, and not the accusative (ACC), can trigger OH on a ditransitive verb (see (1-b)).³

- (1) a. Taro-ga {**Abe sensei/ *Mary**}-o o-tasuke-si-ta
Taro-NOM {Prof. Abe/ Mary}-ACC H1-help-H2-PST
'Taro helped Prof. Abe'
- b. Taro-ga {**Ito sensei/ *Mary**}-ni Abe sensei-o go-syookai-si-ta
Taro-NOM {Prof. Ito/ Mary}-DAT Prof. Abe-ACC H1-introduce-H2-PST
'Taro introduced Prof. Abe to Prof. Ito'

Boeckx and Niinuma (2004) (henceforth B&N) argue that these hierarchy effects in Japanese can and should be analyzed as (defective) intervention, that is as a Minimality effect. This squib explores consequences of this proposal and assumes it without discussion.⁴ They argue that the OH agreement is the result of an Agree relation (Chomsky, 2000), with the honorific probe located on v and the internal arguments of the

verb both in VP. Agree is comprised both of a Match process, and of a Valuation process. The honorific probe searches to match a nominal with ϕ -features (with datives assumed to be accessible). The process is successful when the goal denotes an SSS; it fails when it doesn't.⁵ (1-b) with the structure in (2) is thus ungrammatical because the DAT argument has accessible ϕ -features and is closer to v than the accusative (ACC) argument is, so that v necessarily matches DAT; DAT is not an SSS so that Valuation and Agree as a whole fail.

(2) [vP [VP DAT [ACC V]] v]

B&N support the structure in (2) by pointing out that scrambling the ACC across the DAT does not improve acceptability. Assuming that phrase internal movement is banned, the ungrammaticality of examples like (3) is accounted for if v is taken to be the probe, and the base hierarchy of ditransitives to be DAT higher than ACC; the scrambled ACC resides in a position at least as high as Spec, v , making it inaccessible for probing.

(3) *Taro-ga Abe sensei-o **Mary-ni go-syookai-si-ta**
 Taro-NOM Prof. Abe-ACC Mary-DAT H1-introduce-H2-PST
Intended: 'Taro introduced to Prof. Abe'

In summary, B&N conclude that (i) OH agreement is the product of an Agree relation, and (ii) that the OH probe is on v .

Given (i–ii), consider the core fact of this squib in (4):⁶

(4) ***Taro-ni**₁ Hanako-ga *t*₁ sensei-o **go-syokai-si-ta**
 Taro-DAT Hanako-NOM teacher-ACC H1-introduce-H2-PST
Intended: 'Hanako introduced the teacher to Taro'

In (4), the DAT argument *Taro-ni* is not a suitable goal for OH, while the ACC *sensei-o* is;

the DAT moved, and the sentence remains unacceptable as it would have been without movement in (1-b). Thus, (4) shows that, in Japanese OH agreement, *intervention is preserved even when the intervener moves out of the c-command domain of the probe* .

On a strictly derivational view of Agree-Minimality, where Minimality is limited to the mechanics of probing, the unacceptability of (4) would follow trivially and be rather unsurprising. For example, when *v* is merged with VP, the OH probe on *v* searches for a nominal with accessible ϕ -features. The first one it finds does not denote an SSS and the derivation crashes because Valuation fails. What happens at later stages of the derivation is irrelevant. However, this “simple fact” in (4) becomes more problematic when plugged into a less naive theory of Minimality.

Icelandic number agreement in raising constructions, and quirky subject paradigms like in (5), have led to a more complex conception of Minimality since Chomsky (2001), namely what we will refer to as *Phase Minimality* (PM). On that view, Minimality is a representational constraint that applies to Match as part of an *Evaluation* procedure at a later point of the derivation, i.e., at the phase level. Hence, intervention effects can be obviated by “getting interveners out of the way” via movement, with the caveat that traces/copies of movement are invisible to Match.⁷ In Icelandic,⁸ the DAT argument of quirky subject constructions blocks number agreement between the probe on T and the nominative (NOM) object if it stays low (5-a), but it does not block number agreement when it moves above the verb (5-b).

- (5) a. það líkaði/*líkuðu **einum málfræðingi** þessar hugmyndir.
 EXPL liked.3SG/*3PL one linguist.DAT these ideas.NOM
 ‘A linguist liked these ideas.’ (Sigurðsson and Holmberg, 2008, 257)
- b. Honum líka/líkar **þeir**.
 him.DAT like.3PL/3SG they.NOM

‘He likes them.’

(Sigurðsson and Holmberg, 2008, 261)

PM captures this difference by assuming that Match is evaluated at the phase level, in this case the domain of C: When the DAT subject moves above the verb, the tail of movement cannot be matched with. The consequence is that Match between the number probe on T and the NOM object does not violate Minimality at the relevant stage of the derivation.

Crucially, the Japanese fact in (4), then, seems to be diametrically opposite to the Icelandic paradigm in (5): In Icelandic, movement of the intervener obviates intervention, but in Japanese, movement of the intervener does not obviate intervention. If the analysis of Japanese OH agreement and Icelandic number agreement stand, then we face a paradox. In other words, the Japanese fact seems to constitute a counter-example to PM.⁹

In the rest of the squib, we show the inadequacy of Chomsky’s (2001) model, and then discuss two pathways to resolve the empirical tension. Both solutions make the domain of Eval bigger than the complement of the phase head. Either the domain minimally includes the complement *and the phase head*, or it includes *the whole completed phase* (cf. Bošković, 2016). Both solutions face serious problems, in particular if Kučerová’s (2016) re-evaluation of Icelandic facts is adopted, as we explore. The possibility remains open that the starting assumption – that honorification is an Agree relation – must be rejected. If the starting assumption is not rejected, then the modification to the PM model that is required to solve the paradox between Japanese and Icelandic highlights that Eval and Spell-Out may not be two sides of the same coin in the way that Chomsky (2001) suggests. In other words, the paradox highlights that cyclicity and Minimality are not reducible to a common mechanism (Chomsky’s “Interpretation”, or later “Transfer”).

2. Derivation by phase: Icelandic

The general architecture of Grammar around PM is Phase Theory. The following discussion will presume familiarity with the general system (see Chomsky, 2000, 2001; Citko, 2014). The components of the system that are relevant are (a) *Phases*: which categories have phase status;¹⁰ (b) *Phase Impenetrability Condition* (PIC): what is the domain of Spell-Out, at which point in the derivation does it apply; (c) *Evaluation*: what is the domain of Evaluation (Eval), at which point in the derivation does it apply; (d) *Calculus of chains*: what potential interveners ‘block’ matching relations.

Chomsky (2001) explores a number of models, each with different details for the four components above. From the options he discusses, we believe that the following model comes closest to explaining the ungrammaticality of (4) (while still failing to do so).

- (6)
- a. *Phases*: C and v are phase heads;
 - b. “*Weak*” *PIC*: Spell-Out applies to the complement of a phase head, and as soon as the next phase head is merged.
 - c. *Evaluation*: Eval applies to the complement of a phase head, and as soon as the next phase head is merged (same as Spell-Out);
 - d. *Calculus of chains*: a goal α is an intervener for β , i.e. it blocks Match between a probe P and a goal β , iff
 - (i) α is accessible to (=c-commanded by) P , and
 - (ii) α is closer to P than β is, where ‘closer than’ is defined as ‘asymmetrically c-commands’, and
 - (iii) α is the head (=in the highest occurrence) of its chain

(For convenience, we will mostly talk about lower and higher *copies* of a goal.)

In order to walk through the derivations, two clarifications are necessary. First, to avoid the issue of how the root is spelled out, assume that all examples are embedded in a higher clause. Second, assume that what is spelled out in one cycle is still part of the domain of Eval on a later cycle. While not explicit in Chomsky (2001), the assumption is necessary to successfully evaluate an Agree relation between T and a NOM argument inside VP, given that the probe (T) and the goal (NOM) are spelled out in separate cycles.

With these clarifications in place, the absence of blocking in Icelandic (5-b) results as follows. The relevant domain of Eval is the TP structure in (7), given that it is the first complement of a phase head that contains both the number probe on T and its goal. (We abstract away from movement to Spec,C and verb-second.) For the probe to be valued plural, it has to Match the NOM argument.

(7) [TP DAT_[-F] [T' T_[uNum:pl] [vP DAT_[sg] ... [VP ... NOM_[pl] ...]]]

In (7), the copy of the DAT subject in Spec,v does not block Match(T, NOM) according to the calculus in (6-d-iii) above because the copy is not the head of the chain within TP. Thus, the sentence is acceptable with T-NOM number agreement even though we know that some copies of the DAT argument are closer to the probe than the NOM argument is.

3. Derivation by phase: Japanese

The same model, however, fails to account for the intervention effect in Japanese (4).

According to the model, the following TP structure is the relevant domain of Eval, as it is the first chunk of structure that contains both the probe on v and the ACC goal:

(8) *[TP ... DAT_[-SSS] ... NOM ... [v' [vP DAT_[-SSS] [v' ACC_[+SSS] V]] v_[uφ:+SSS]]]

In (8), the DAT object scrambled above the NOM subject to a position outside its base

position. Assuming that scrambling is movement,¹¹ there is a copy of the DAT object between the probe on v and the ACC goal. That DAT argument, however, is not an intervener for the ACC argument as per the calculus in (6-d-iii), given that the copy is not the highest copy in the structure. The Match relation between v and ACC is thus ruled in, and (4) predicted to be acceptable, contrary to fact.

4. Consequences

A number of competing conclusions can be drawn from the apparent paradox between Icelandic and Japanese. First, the contradiction rests on the assumption that Japanese OH agreement is an Agree relation between a goal and a probe on v as argued for by B&N. The right conclusion could therefore be that this assumption is wrong, as argued by Bobaljik and Yatsushiro (2006). Second, the facts of either language may be wrong or incomplete. Third, the model of PM is wrong, either in its entirety, or in its current state.

In the remainder of the squib we focus on consequences for PM. We believe that the failure to capture the lack of obviation in Japanese highlights that the domain of Eval is too small. Currently, the first piece of structure that is evaluated when C is merged is VP, the complement of v . However, VP does not contain the probe on v , so that a probe-goal relation between v and an argument in VP cannot be evaluated until TP is spelled out. At the same time, the evaluated structure had better not be too large either, given that if TP is evaluated, the wrong prediction results (recall (8)). The consequence is that it may not be possible for Eval and Spell-Out to apply to the same domain given that Eval needs to apply to something that is not the complement of a phase head. An architecture where the two functions are aspects of a single function (“Interpretation”; “Transfer” in later work) may thus not be tenable. If that is indeed the case, the ultimate goal of reducing cyclicity and Minimality to a single phenomenon fails in this architecture.

We discuss two options to modify PM and problems that arise in what follows, without deciding between the two. We also discuss consequences of Kučerová’s (2016) re-evaluation of Icelandic facts as it increases the tension between Icelandic and Japanese.

5. Modify PM, Option A: evaluate the complement *with* the phase head

The first option is to increase the domain of Eval to include exactly the phase head and its complement. Both Japanese and Icelandic can be captured in that way. In Japanese, the structure in (9-a) is evaluated upon merger of C. No obviation occurs because the evaluated structure ([v +VP]), does not contain a landing site above the probe for movement of the DAT intervener. In Icelandic, [C+TP] in (9-b) is evaluated, which can and does contain the landing site for movement of the DAT non-intervener, Spec,T.

- (9) a. * $[_v [_{VP} \text{DAT}_{[-F]} [_v \text{ACC}_{[+F]} \text{V}]] v_{[uF:+]}]$ JAPANESE
 b. $[C' C [_{TP} \text{DAT}_{[-F]} [T' T_{[uF:+]} [_{VP} \text{DAT}_{[-F]} \dots \text{NOM}_{[+F]} \dots]]]$ ICELANDIC

Two generalizations can be stated in this context concerning when intervention effects may be obviated. First, as was known, *obviation of intervention is only possible if the domain of Eval includes a potential landing site for the intervener*. In addition, the modification of PM adds a new generalization, namely that *obviation of intervention is only possible for Agree relations where the probe is not located on the phase head*. We note that this modification of PM matches the domain of Spell-Out recently argued for on the grounds of morpho-phonological evidence (Sande, Jenks, and Inkelas, 2020).

6. Kučerová (2016): probe is on v in Icelandic, too

Kučerová (2016) argues that the probe in Icelandic is not on T, but on v . She shows that the nominals that can obviate intervention when moved are the ones that are

independently able to participate in overt object shift. She concludes that the derivations that obviate intervention include a step of object shift, which is concealed by additional later movement, and that it is object shift that obviates intervention. Given that object shift targets vP , the probe must consequently be located on v . If Kučerová is right, then Japanese and Icelandic would have essentially the same vP structure in the agreement configurations of interest, with nonetheless different outcomes—clearly a paradox. The solution offered for Japanese in section 5 now makes the wrong prediction for Icelandic. Icelandic, too, should now exhibit an intervention effect, regardless of whether the DAT subject moves or not, because (10) will be evaluated. In (10), the DAT subject has not undergone object shift to vP yet, and v must Match the DAT rather than the NOM argument according to the calculus in (6-d-iii).

(10) * $[_{v'} v_{[uF:+]} [_{VP} \mathbf{DAT}_{[-F]} [_{v'} \mathbf{NOM}_{[+F]} \mathbf{V}]]]$ ICELANDIC

7. Modify PM, Option B: evaluate the whole phase

Assuming Kučerová (2016), the domain of Eval must be made larger than $[v+VP]$ to include the landing site of object shift and yield obviation in Icelandic. If the domain of Eval ought to bear some natural relation to the phase head, then the only alternative is to evaluate the whole phase—the maximal projection of the phase head, vP in this case. In Icelandic, that gives enough structure to include the intermediate landing site of the object-shifted DAT subject. (11-a) is evaluated when C is merged, and intervention is obviated because there is a higher DAT copy in the structure.

(11) a. $[_{vP} \mathbf{DAT}_{[-F]} [_{v'} v_{[uF:+]} [_{VP} \mathbf{DAT}_{[-F]} [_{v'} \mathbf{NOM}_{[+F]} \mathbf{V}]]]]$ ICELANDIC
 b. $[_{vP} \mathbf{DAT}_{[-F]} [_{v'} [_{VP} \mathbf{DAT}_{[-F]} [_{v'} \mathbf{ACC}_{[+F]} \mathbf{V}]] v_{[uF:+]}]]$ JAPANESE

However, we now face a new serious challenge. With vP evaluated, Japanese cannot be allowed to have a derivation parallel to (11-a). Else, Japanese and Icelandic are again predicted to have equal outcomes—the partial derivation in (11-b), where the DAT object scrambles to vP , had better fail (NOM subject omitted). For this modification of PM to resolve the tension, either (a) scrambling to vP is generally impossible in Japanese,¹² or (b) scrambling to vP is impossible in sentences like (4). Discussing these options in depth goes beyond the scope of this squib. We conclude by pointing out that we see or are aware of no particular reason why (a) or (b) should hold, casting serious doubt on this option.

8. Conclusion

We argued that *if* Japanese object honorification is an Agree relation (following Boeckx and Niinuma 2004), then the core fact we present in (4) highlights an interesting empirical tension between the lack of obviation of intervention in Japanese, and the presence of obviation of intervention in Icelandic, tying together a number of points. First, Chomsky's (2001) model of phase-based Minimality wrongly predicts Japanese and Icelandic to pattern the same, and second, in order to salvage this model of Minimality, the domain of Evaluation (and arguably Interpretation as a whole) must be made larger than the phasal complement. Specifically, if the number probe in Icelandic is on T, then the tension between Icelandic and Japanese can be resolved by evaluating the unit [phase head + complement]; however, if the probe in Icelandic is on v (Kučerová, 2016), then the whole phase must be evaluated, *and* scrambling to vP must be unavailable in Japanese.

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Notes

¹ *Honorific agreement* is the phenomenon where the social attitude of the speaker towards discourse referents is reflected morphologically on the verb. There is both *subject* and *object* honorification agreement. See Harada (1976); Shibatani (1977); Toribio (1990).

²Two morphemes appear on the verb in the context of object honorification: a prefix ‘H1’, and what is presumably a light verb ‘H2’. It is debated which one is the “real” honorification morpheme. Boeckx and Niinuma (2004) assume it is H2; Bobaljik and Yatsushiro (2006) argue it is H1.

³ Data adapted from Boeckx and Niinuma (2004). We limit ourselves to ‘introduce’ in this paper, but the generalization holds across a range of ditransitive constructions (where the “indirect object” is not a location), see Boeckx and Niinuma (2004, section 2).

⁴Whether the intervention effect involves a *defective* intervener or not does not matter for this squib; we thus use the neutral term ‘intervention’, instead. For an alternative grammatical view on OH see Bobaljik and Yatsushiro (2006). They argue that the prefix *o-* is

the “actual” piece of honorific morphology, and that OH agreement cannot be the result of an Agree probe on v given that $o-$ can be found on fronted VPs that can be shown to be smaller than vP . We follow Boeckx (2006) and caution against giving up the explanation of the intervention effect prematurely given that the fronting fact may result from a syntax-morphology mismatch. The prefix $o-$ appears on V in surface structure, but the surface structure is compatible with $o-$ being on v at the time of probing. In fact, as pointed out to us by *anonymized* (p.c.), such mismatches are independently warranted by English affix hopping sentences like (*Alex wanted to be eating a sandwich, and*) [*eat-ing a sandwich*]₁ *she is t₁*: On an affix hopping analysis where *-ing* is lowered onto *eat* (be it in syntax or post-syntax), the resulting configuration parallels an analysis where the OH prefix is syntactically associated with v while appearing on a fronted constituent smaller than vP .

⁵Alternatively, Valuation is always successful. Rather, there simply is no convergent derivation in which the DAT object denotes a non-SSS and the morphology of v surfaces with honorific marking.

⁶We conducted an informal survey with native speakers to test (4). The survey consisted of two test sentences where the SSS argument was either the scrambled DAT or the ACC in base position. A short story explaining the context in which the introduction was carried out was provided to make clear who was getting introduced to whom. 5 out of the 7 Japanese native speakers agreed that the sentence with ACC SSS was very much unacceptable, describing a perceived unnaturalness of ‘honorifying the non-SSS DAT’.

⁷Various versions of this auxiliary assumption are explored in Chomsky (2001), for example that only the phonological edge can intervene and block matching, or that only heads of chains can intervene.

⁸Paradigms stem from what is called “Icelandic B” in Sigurðsson and Holmberg (2008).

⁹See also Broekhuis (2007), who challenges PM in comparing Icelandic and Dutch.

¹⁰Where the distinction is relevant, ‘phases’ refers to *strong* phases (see Chomsky, 2001).

¹¹If scrambling is base-generation, then the DAT argument will equally not be an intervener, predicting (4) to be acceptable, unless there is a lowering component to scrambling (e.g. Bošković and Takahashi, 1998) *and* the calculus of Minimality crucially refers to a stage of the derivation where lowering has occurred.

¹²We note in passing that fronted predicates (FPs) as in (i) allow both object orders. FP is plausibly smaller than TP since the tense morpheme is stranded. Conversely, B&N conclude that scrambling to VP is not possible (see (3)); within the logic of this squib, FP is then larger than VP, leaving ν P as the category for FP and suggesting the availability of scrambling to ν P. Following the logic of this section, one is forced to conclude that in (i) scrambling instead targets a focus projection, presumably headed by *-sae*.

- (i) [FP {Imouto-o} sensei-ni {imouto-o} shoukai]-sae₁ Taro-ga t₁ si-ta
 sister-ACC teacher-DAT sister-ACC introduce-even Taro-NOM do-PST
 ‘Taro even introduced his sister to his teacher.’