Inversion as rightward-dative shift in Icelandic ditransitives^{*}

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1. Introduction and overview of the data

Much attention has been paid in the literature to ditransitive constructions in languages such as English, in which the double object (DP-DP) frame alternates with the prepositional (DP-PP) frame under a broad range of conditions. Less attention has been paid to ditransitives in Icelandic, a language which differs from English in that the DP-PP frame is far more restricted. Further, Icelandic exhibits a word order pattern not found in (standard American) English in which the direct object precedes the indirect object, but there is no preposition, as in (1)b.

(1)	a.	they.NOM	showed	foreldrunum the parents.DAT	the kids.ACC	Standard Order
	b.	5	1	oarents the kids.' krakkana	foreldrunum.	Inverted Order

b. Pau syndu krakkana foreidrunum. *Invertea Order* they.NOM showed the kids.ACC the parents.DAT 'They showed the kids to the parents.' (Collins & Thráinsson 1996:416, (44))

Building on Collins and Thráinsson's (1996) proposal that inversion is a base-generated structure, I argue that Bruening's (2010b) R-dative shift analysis for some ditransitives in English can be extended to account for constructions such as (1)b. The crux of Bruening's

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(2010b) argument is that some DP-PP constructions in English, such as (2), actually have an underlying DP-DP structure, with the goal argument merged in a right-projected specifier of ApplP.

(2) ...a stench or smell is diffused over the ship that would give a headache to the most athletic constitution. (Bruening 2010b:288, (5a); Bresnan & Nikitina 2009:5 (15))

This proposal arguably rests on less than desirable stipulations about heavy NP shift and insertion of the preposition *to*, but these issues do not arise in Icelandic. Based on evidence in Icelandic parallel to the English scope facts presented by Bruening (2010b), I argue that the dative in (1)b is merged in a right specifier of ApplP. Additionally, I illustrate that only a morphological dative can occupy that position. R-dative shift in Icelandic only applies to datives, and as such, provides additional support for Bruening's (2010b) proposal.

While the subject in an Icelandic ditransitive is always nominative, in the DP-DP frame, the indirect and direct objects can appear in several different case combinations: Dat-Acc, Dat-Dat, Acc-Dat, Dat-Gen, and Acc-Gen.¹ There are two intriguing properties related to these patterns. First, the DP-PP frame is semantically restricted to verbs that encode physical motion of the direct object (Thráinsson 2007:174). By and large, only verbs that have a Dat-Acc or Dat-Dat case pattern allow the prepositional frame – more specifically, a PP headed by *til* 'to,' as shown in (3) - (8)². (I briefly discuss PPs headed by other prepositions in Section 5.)

- (3) a.Haraldur sendi mér ost. Harold sent me.DAT cheese.ACC 'Harold sent me (some) cheese.'
- (4) a.Þeir föxuðu mér samninginn. they faxed me.DAT contract.ACC 'They faxed me the contract.'
- (5) a.María gaf Haraldi bókina. Mary gave Harold.DAT book.ACC 'Mary gave Harold the book.'
- (6) a.Hann sýndi strákunum bátinn. he showed boys.DAT boat.ACC 'He showed the boys the boat.'
- (7) a.Hún skilaði mér bókinni. she returned me.DAT book.DAT 'She returned the book to me.'

- b. ... sendi ost til mín. sent cheese.ACC to me.GEN 'H. sent (some) cheese to me.'
- b. ... föxuðu samninginn til mín. faxed contract.ACC to me.GEN 'They faxed the contract to me.'
- b.*...gaf bókina til Haraldar. gave book.ACC to Harold.GEN 'Mary gave the book to Harold.'
- b.*...sýndi bátinn til strákanna. showed boat.ACC to boys.GEN 'He showed the boat to the boys.'
- b....skilaði bókinni til mín. returned book.DAT to me.GEN 'She returned the book to me.'

¹ According to Jónsson 2000, the approximate number of verbs which exhibit the various case frames is as follows: Dat-Acc (>220); Acc-Dat (37); Dat-Dat (29); Dat-Gen (28); Acc-Gen (21).

² For space, I have sometimes omitted the determiner in the gloss in these and other examples.

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(8)	a. Ég lofaði	henni	því.	b.*.	lofaði	því	til	hennar.
	I promised	l her.DAT	it.DAT		promised	it.DAT	to	her.GEN
	'I promised her it.'				'I promise	ed it to l	her.	,
	(Examples (3) - (8) found in Thráinsson 2007, pp.173-1					2007, pp.173-178)		

Second, like the prepositional frame, inversion is also restricted by case pattern. Inversion is most readily allowed when the standard order is Dat-Acc and is acceptable when the standard order is Dat-Dat. However, inversion is not restricted according to verbal semantics. Some verbs that do not allow the DP-PP frame do allow inversion, as shown by the grammaticality of (9) and (10) and the acceptability of (11) – compared with the ungrammaticality of (5)b, (6)b, and (8)b.

- (9) Hann gaf ambáttina konunginum.
 he gave the maidservant.ACC the king.DAT
 'He gave the maidservant to the king.' (Collins & Thráinsson 1996:415, (ex 43))
- (10) Þau sýndu krakkana foreldrunum.
 they showed the kids.ACC the parents.DAT
 'They showed the kids to the parents.' (ibid, (ex 44))
- (11) ?Ólafur lofaði þessum hring Maríu.
 Olaf promised this ring.DAT Mary.DAT
 'Olaf promised this ring to Mary.

The remainder of this paper is organized as follows. Section 2 provides a summary of the relevant literature, namely Collins and Thráinsson's (1996) discussion of inversion and Bruening's (2010b) proposal for English. Section 3 illustrates how the R-dative shift proposal accounts for Icelandic. Section 4 relates inversion to other constructions in Icelandic, in particular, passivization of ditransitives in which either object can move to the subject position and transitive constructions which alternate between having a dative subject and nominative object and a nominative subject and dative object. Section 5 concludes and discusses issues for further research.

2 **Previous literature**

2.1 Inversion is base-generated: Collins and Thráinsson 1996

Based on evidence from object shift and standard rightward extraposition, Collins and Thráinsson (1996) convincingly argue that inversion is base-generated.³ This is in opposition to Ottósson (1991), who argues that inversion is a derived structure. Collins and Thráinsson (1996) show that while object shift obeys Holmberg's generalization, inversion does not. If the main verb moves to T in a ditransitive, then the indirect object can shift

³ Collins and Thráinsson's (1996) overall goal is to provide an account of object shift in Icelandic, not an explicit account of inversion. There is also evidence from binding, which I return to in Section 5.

alone, as in (12)a, or the indirect object can shift with the direct object, as in (12)b.⁴ Crucially, the indirect object precedes the direct object. By contrast, the auxiliary prevents verb movement in (13), and consequently, object shift cannot occur. In (14), the auxiliary still prevents verb movement, but both the standard and inverted orders are allowed.

(12)	 Verb Movement, Object Shift a. Ég lána Maríu ekki bækurnar/bækur. b. ?Ég lána Maríu bækurnar ekki. I lend M.DATnot the books/books.ACC I lend M.DAT the books.ACC not 'I do not lend Maria the books/books.' 'I do not lend Maria the books.' (Collins & Thráinsson 1996, (19a) & (23))
(13)	 No Verb Movement, No Object Shift a.*Ég hef Maríu ekki lánað bækurnar. I have Maria.DAT not lent the books.ACC b.*Ég hef Maríu bækurnar ekki lánað. I have Maria.DAT the books.ACC not lent (ibid, (20) & (22))
(14)	No Vark Marian and Invanian

(14) No Verb Movement, Inversion

- a. Ég hafði gefið konunginum_i ambáttina sína_i. I had given the king.DAT the maidservant.ACC his(refl) 'I had given the king his maidservant.'
- b. Ég hafði gefið ambáttina_i konungi sínum_i. I had given the maidservant.ACC king.DAT her(refl) 'I had given the maidservant to her king.' (ibid, (50))

Other evidence points to a difference between inversion and rightward extraposition. Ottósson (1991) illustrates that an adverb can intervene between the two objects in heavy NP shift, but not in inversion and there is phonological evidence as well. While the dative has to be stressed in inversion, the dative need not be heavy. As shown in (15)b, inversion is reported to not be allowed with reduced pronouns.⁵

(15)	a. Þeir gáf 'onum 'ana.	b.*Þeir gáf 'ana 'onum.		
	they gave him.DAT her.ACC	they gave her.ACC him.DAT		
	'They gave her to him.'	'They gave her to him.' (ibid, (49))		

Crucially, when the dative is heavy, rightward extraposition is allowed when inversion is not. The sentence in (16)a has an Acc-Dat case pattern in the standard word order. As such, the inverted order in (16)b is ungrammatical. However, in (16)c the heavy accusative indirect object has been shifted and this is acceptable.

⁴ This latter option is less good. There is speaker variation and the acceptability varies with intonational patterns as well (Collins & Thráinsson 1996:406).

⁵ Though these examples are acceptable for some speakers.

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(16)	a.	Forstjórinn	svipti	manninn	vinnunni.	
		the boss	deprived	the man.ACC	the work.DAT	
		'The boss d	eprived th	e man of the w	ork.'	
	b.	*Forstjórinn	svipti	vinnunni	manninn.	
		the boss	deprived	the work.DAT	the man.ACC	
	c. '		1			sem hafði unnið
		the boss	deprived	the work.DAT	the man.ACC	that had worked
		hjá honum í	10 ár.			
		for him f	for 10 year	urs	(it	oid, (45))

Building on Falk 1990, Collins and Thráinsson (1996) argue that the inverted order is not derived by movement and that inversion has the same structure as the DP-PP frame. A null causative verb selects for a TP small clause. That TP contains a VP whose head decomposes into the ditransitive verb plus either HAVE or BE. HAVE selects for a DP and BE selects for a PP; the remaining object is merged in the specifier of VP. This analysis is in line with approaches which argue that the meaning of the double object frame encodes caused possession while the meaning of the prepositional frame encodes caused motion, discussed in more detail in the next section. While I agree with Collins and Thráinsson (1996) that inversion is base-generated, in Section 4, I illustrate that scope facts militate against a small clause analysis of the double object construction, for both the standard and the inverted word orders.

2.2 The R-Dative Shift proposal for English: Bruening 2010b

In the literature on English ditransitives, there is a tremendous amount of debate about the structure and semantic interpretation of the double object construction versus the prepositional construction. Derivational analyses argue that one frame is basic, with Larson 1988 being the canonical exemplar of this approach. There it is argued that the double object frame is derived from a structure akin to the prepositional frame via a VP-internal passive-like movement of the indirect object. This kind of analysis has largely been abandoned, with much of the contemporary debate centering around whether the DP-DP and the DP-PP frames map to distinct meanings that are encoded in the structure (though see Hallman 2015 for a derivational approach fundamentally distinct from Larson 1988).

According to the Alternative Projection Approach, the DP-DP frame encodes caused possession while the DP-PP frame encodes caused motion. Though the technical implementation varies, this core idea is found in a wide range of work. Collins and Thráinsson (1996), Harley (2002), Beck and Johnson (2004), and Harley and Jung (2015) all argue that in the double object frame, both DPs are merged inside a small clause whose head encodes HAVE. The proposed structures of the prepositional frame vary. In line with Collins and Thráinsson (1996), Harley (2002) argues that the prepositional frame also contains a small clause, but one whose head has a locative interpretation. This proposal is modified in Harley and Jung 2015. In this latter work, the direct object is merged in the specifier of VP and the PP is complement to V, which is in line with the DP-PP structure adopted by Beck and Johnson (2004).

By contrast, proponents of the Verb Sensitive Approach (Rappaport Hovav and Levin 2008) agree that the double object frame has a caused possession interpretation. The difference is that the interpretation of the prepositional frame is argued to depend on the verb. With verbs such as *give*, DP-PP encodes caused possession, while with verbs such as *throw* and *send*, DP-PP can encode either caused possession or caused motion.

Yet another perspective is offered by the Information Structure Approach found in work by Bresnan (et al. 2007), Bresnan (2007), and Bresnan and Nikitina (2009). This line of research argues that factors related to givenness, animacy, definiteness, phrasal length, prototypical use, and whether the indirect/direct object is a pronoun determine which frame is used. A variety of data collection and analysis tools are employed by this approach and one intriguing observation that emerges is that some previously observed restrictions on the prepositional frame vanish when the goal is phonologically heavy.⁶ While (17)b is ungrammatical for many English speakers, the sentence in (2), repeated in (18), is just fine.

- (17) a. The lighting here gives me a headache.b.*The lighting here gives a headache to me. (Bruening 2010b:288, (2))
- (18) ...a stench or smell is diffused over the ship that would give a headache to the most athletic constitution. (Bruening 2010b:288, (5a); Bresnan & Nikitina 2009:5 (15))

Examples such as (18) are not without controversy and this is where Bruening's (2010b) R-Dative shift proposal enters the debate. Bruening (2010a/b) argues that while the double object and the prepositional frames have different structures, only the DP-PP frame contains a small clause. Further, Bruening (2010b) specifically argues against the Information Structure Approach, proposing that DP-PP constructions such as a (18) actually have an underlying DP-DP structure. The argument goes as follows.

Double object and prepositional frames exhibit a scope asymmetry. While (19) has a surface scope interpretation, (20) has ambiguous scope.

(19) DP-DP = surface scope

I gave <u>a</u> different child <u>every</u> candy bar. (Bruening 2010b:292, (12b))

- There is a different child and that child was given every candy bar.
- *For every candy bar, it was given to a different child.
- (20) $DP-PP = ambiguous \ scope$

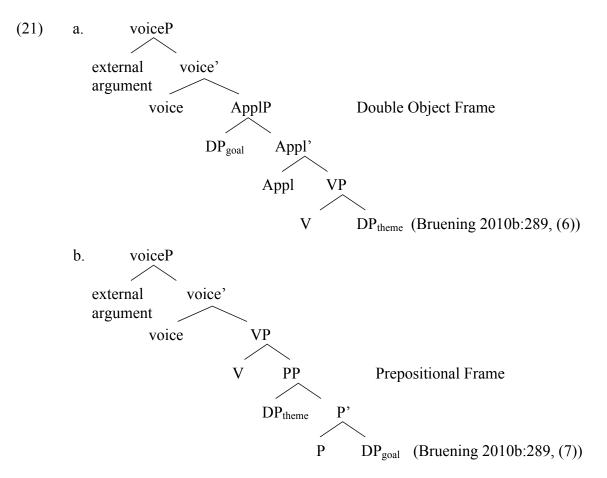
I gave <u>a</u> different candy bar to <u>every</u> child. (Bruening 2010b:292, (12a))

- There is some different candy bar, and that candy bar is given to every child.
- For every child, there is a different candy bar.

For Bruening (2010a/b), this scope asymmetry is evidence that a small clause structure cannot apply to both frames. If both objects are arguments of the same head in both frames,

⁶ Bresnan et al. (2007) use statistical modeling to make predictions about which frame is used. Bresnan (2007) reports the findings of corpus and judgment studies which show that speakers use contextual information to choose between frames. Bresnan and Nikitina (2009) provide a Stochastic Optimality Theory analysis.

then both DPs are equidistant from higher positions and either should be able to move first in scope-taking operations. Both frames should, therefore, have ambiguous scope. Since the double object frame forces surface scope, this suggests that the indirect object and the direct object are arguments of different heads, as shown in (21)a. The structure in (21)b shows that the two DPs are arguments of the same head in the prepositional construction.



With respect to constructions such as (18), they do not behave as predicted. The crucial observation is the contrast between (22) and (23), whereby the former has the expected surface scope interpretation and the latter has an unexpected inverse scope interpretation.

(22)	<i>DP-DP</i> = <i>surface scope</i>	(Bruening 2010b:294, (14a/b))
	- This list 4	1:66

- a. This lighting gives <u>every</u>one <u>a</u> different kind of headache.
 For every person, there is a different kind of headache.
 - *There is some different kind of headache, and that headache is given to everyone.

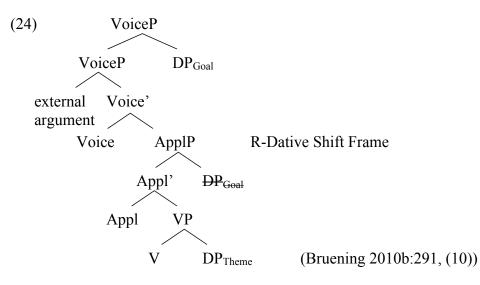
b. This lighting gives <u>a</u> different person <u>every</u> kind of headache.

- There is a different person and that person gets every kind of headache.
- *For every kind of headache, it is given to a different person.

(23) $DP-PP = inverse \ scope!$ (Bruening 2010b:294, (14c/d))

- a. This lighting gives every kind of headache to a different (type of) person.
- There is a different type of person, and that person gets every kind of headache.
- *For every kind of headache, it is given to a different type of person.
- b. This lighting gives <u>a</u> different kind of headache to <u>every</u>one who enters the room.
- For everyone who enters, that person gets a different headache.
- ?There is some different kind of headache and that headache afflicts everyone who enters the room.⁷

Bruening (2010b) argues that the inverse scope reading suggests that the underlying structure is actually DP-DP with the two DPs flipped and the goal DP being merged in a rightward-projected specifier of ApplP. The goal is subsequently heavy-shifted to a higher right-projected specifier of VoiceP, shown in (24).



While this analysis accounts for the unexpected inverse scope interpretation, there are some non-trivial complexities, as pointed out by Ormazabal and Romero (2012).⁸ First, projection of a rightward specifier is conditional on the phrase that occupies that position being A-bar extracted, as codified in (25), either by heavy shift or WH movement.

(25) *The Extraction Constraint on Rightward Specifiers*: The specifier of ApplP may be ordered to the right of its sister only if the NP that occupies it undergoes A-bar extraction. (Bruening 2010b:291, (9))

Ormazabal and Romero (2012) highlight that this analysis overgenerates in that the structure in (24) would be available to any *to* construction involving A-bar movement, as Bruening (2010b) points out. Additionally, *to* is not present in the underlying structure and

⁷This marginal surface scope reading is mine. Bruening (2010b) only reports the inverse scope judgment.

⁸A response to this critique is found in Bruening 2018.

must somehow be inserted. (See Ormazabal and Romero 2012 for a fuller discussion of these and other issues.)

I will not weigh in on the debate about the merits of the R-Dative shift proposal for English. However, I will illustrate that the analysis accounts for Icelandic inversion – with two desirable consequences. First, there is no preposition, so positing a rationale for its insertion is unnecessary. Second, there is an overt morphological restriction on the right specifier. The constraint at work in Icelandic is stated in (26).

(26) *Constraint on Rightward Specifiers in Icelandic*: The specifier of ApplP may be ordered to the right of its sister <u>only</u> if the DP that occupies it is a dative-marked argument.

In Icelandic, R-Dative shift applies to morphological datives!

3. Accounting for inversion in Icelandic

Icelandic exhibits the same kind of scope asymmetry that English does, as evidenced by the interpretations of the sentences in (27) and (28).

(27) DP-DP: Surface Scope⁹

Haraldur sendi einhverjum blaðamanni öll skjölin. Harold sent some reporter.DATall the documents.ACC 'Harold sent some reporter all the documents.'

- Surface: There is some reporter and that reporter received all documents.
- *Inverse: For all documents, each one was sent to a different reporter.

(28) DP-PP: Ambiguous Scope

Kennarinn sendi skjal til allra foreldra í skólanum. the teacher sent a document.ACC to all parents.GEN in the school 'The teacher sent a document to all the parents in the school.'

- Surface: There is some document and that document was sent to all parents.
- Inverse: For all parents, they received some unique document.

The constructions in (29) follow the standard word order and have the expected surface scope. However, inverse scope is strongly preferred in the inversion constructions in (30).

- (29) DP-DP, Standard Word Order: Surface Scope
 - a. Norðurljósin færa öllum útlendingum einhverja tilfinningu. the northern lights provide <u>all</u> foreigners.pl.DAT <u>some</u> feeling.sg.ACC 'The northern lights provide all foreigners some feeling.'
 - Surface: For every foreigner, each person gets a unique feeling.
 - *Inverse: There is a unique feeling and every foreigner gets that feeling.

⁹ Examples from Tinna Frímann Jökulsdóttir. Judgments from Hlíf Árnadóttir and Einar Freyr Sigurðsson.

- b. Norðurljósin færa einhverjum útlendingi allar tilfinningar. northern lights provide <u>some</u> foreigner.sg.DAT <u>all</u> feelings.pl.ACC 'The northern lights provide some foreigner all feelings.'
- Surface: There is some foreigner and that person gets all feelings.
- *Inverse: For every feeling, it is given to a different foreigner.

(30) DP-DP, Inverted Word Order: Inverse Scope

- a. Norðurljósin færa allar tilfinningar einhverjum útlendingi. northern lights provide <u>all</u> feelings.pl.ACC <u>some</u> foreigner.sg.DAT 'The northern lights provide every feeling (to) some foreigner.'
- Inverse (preferred): There is some foreigner and that person gets all feelings.
- Surface (forced): For every feeling, it is given to a different foreigner.
- b. Norðurljósin færa einhverja tilfinningu öllum útlendingum the northern lights provide <u>some</u> feeling.sg.ACC <u>all</u> foreigners.pl.DAT sem koma til Íslands. that come to Iceland

'The northern lights provide some feeling (to) every foreigner that comes to Iceland.'

- Inverse (preferred): For every foreigner that comes to Iceland, each person gets a unique feeling.
- Surface (forced): There is a particular feeling and it is given to all foreigners.

While on Bruening's (2010b) proposal, the indirect object that is merged in the right specifier is labeled as a goal, I propose that in Icelandic, only a dative indirect object can occupy this position. As we have seen, inversion is restricted according to case frame. Constructions which have a genitive direct object do not participate in inversion. (Icelandic does not have genitive indirect objects.)¹⁰ We have thus far seen that only constructions which have the Dat-Acc or the Dat-Dat case pattern in the standard order are allowed to invert, resulting in an Acc-Dat or Dat-Dat order. Additional evidence for the constraint in (26) comes from the fact that the Acc-Dat case pattern can be inverted *if* the accusative form is changed to the dative form, as shown by the contrast between (31)b and (31)c.

(31)	they concealed	Ólaf sannleikanum. Olaf.ACC the truth.DAT the truth from Olaf.	Acc-Dat
	b. *Þeir leyndu they concealed 'They concealed	Acc-Dat = *Dat-Acc	

¹⁰ There are, however, genitive subjects and direct objects. Jónsson (2000) observes that genitives that are subjects and direct objects are themes. Indirect objects are recipients, benefactives, or targets. Since indirect objects aren't themes, genitives cannot be indirect objects. See also Maling 2002 for a detailed discussion of the properties of dative objects.

c. ?Þeir leyndu sannleikanum Ólafi.¹¹ Acc-Dat = ?Dat-Dat they concealed the truth.DAT Olaf.DAT 'They concealed the truth from Olaf.

This kind of morphological requirement might be akin to Person Case Constraint repair strategies in languages which restrict the combination of indirect and direct objects, but further research is needed in order to establish a connection between these two phenomena. An additional property of (26) is that it applies only to actual arguments: inversion of benefactives is ungrammatical, shown in (32)b.

(32) a. Þeir héldu Jóni þessa veislu. they held John.DAT this party.ACC 'They threw John this party.'
b.*Þeir héldu þessa veislu Jóni they held this party.ACC John.DAT 'Intended: they threw John this party.' (Viðarsson 2012, (84))¹²

With respect to heavy shift, speakers report that inversion is better with the phonologically heavy dative in (30)b than with the relatively light dative in (30)a. What is likely at issue is relative heaviness. Some initial corpus research reveals that the most naturally-occurring instances of inversion are ones in which the dative is heavier than the accusative, with inversion in constructions containing an accusative pronoun being the most common (Jóhannes Gísli Jónsson, p.c.). Building on some observations in Ottósson (1991), Dehé (2004) reports the results of studies which found that the standard order is strongly preferred even when other factors have been controlled for.¹³ There is much work to be done on the relationship between inversion and phonological heaviness, but what seems clear at this juncture is that there is a morphological constraint on inversion.

4 Inversion and other constructions

Inversion shares some properties with other constructions in Icelandic – namely "symmetric" verb constructions in which either the underlying subject or the underlying object can raise to the syntactic subject position and ditransitives in which either object can passivize. The pattern that arises is that variation in word order is most readily allowed when a non-structural case c-commands a structural case in the base structure.

Symmetric verb constructions such as (33) are analyzed in Wood and Sigurðsson 2014.

- (33) a. Mér hafa alltaf nægt tvennir skór. me.DAT have always sufficed two.pairs shoes.NOM
 - b. Tvennir skór hafa alltaf nægt mér. two.pairs shoes.NOM have always sufficed me.DAT 'I have always made do with two pairs of shoes.'

(Wood & Sigurðsson 2014:269, (2))

¹¹ Judgment courtesy of Tinna Frímann Jökulsdóttir.

¹² See also Jónsson 2000, footnote 3.

¹³ Dehé (2004) provides an Optimality Theory based account which contrasts the ordering in Icelandic with that in German.

Though some of the details differ, Wood and Sigurðsson (2014) share with Bruening (2010a/b) the core idea that arguments of the same head can be equidistant to higher heads. In both constructions in (33), the dative is merged in Spec,ApplP and the nominative is merged as the sister to Appl. Wood and Sigurðsson (2014) propose that Appl moves to V, thereby extending the phase and making the dative and the nominative equidistant to higher positions. As such, either DP in (34) can move to Spec,TP.

(34) $[_{VP}V+Appl [_{ApplP}DP_1 Appl DP_2]]$ (based on Wood & Sigurðsson 2014:280, (26))

It is plausible that a similar kind of analysis could account for ditransitives in which either DP can passivize, shown in (35), as Wood and Sigurðsson (2014) suggest. This is allowed when the standard frame is Dat-Acc in the active.

(35) a. Konunginum voru gefnar ambáttir. the king.DAT were given maidservants.NOM 'The king was given maidservants.'
b. Ambáttir voru gefnar konunginum. maidservants.NOM were given the king.DAT 'Maidservants were given to the king.' (Zaenen, Maling, Thráinsson 1985, ex 44, slightly modified)

The structure in (34) is in line with proposals in Ussery 2015, Wood 2015, and Sigurðsson 2017. However, if such an analysis is on the right track, then we are faced with a conundrum. The asymmetry in ditransitive scope suggests that the DPs are arguments of the same head only in the prepositional frame, since that is the frame which has ambiguous scope. Yet, the alternation in (35) suggests that a structure such as (34) might apply.

There is yet another conundrum. The scope interpretations in (30) are at odds with the binding interpretations in (36). The sentence in (36)a has the standard word order and the interpretation suggests that the dative c-commands the accusative. However, the interpretation in (36)b suggests that the accusative c-commands the dative in (36)b.

- (36) a. Ég hafði gefið konunginum_i ambáttina sína_i.
 I had given the king.DAT the maidservant.ACC his(refl)
 'I had given the king his maidservant.'
 - b. Ég hafði gefið ambáttina_i konungi sínum_i.
 I had given the maidservant.ACC king.DAT her(refl)
 'I had given the maidservant to her king.' (Collins & Thráinsson 1996, ex 50)

Such facts are discussed in Ottósson (1991) and Collins and Thráinsson (1996), who note that rightward extraposition does not change binding.¹⁴ One possibility is that there might be flexibility in which argument is merged in Spec,ApplP. The accusative could be merged in a left-projected specifier in (36)b, with the dative merged as the sister to V. I leave a more extensive investigation into the interaction of scope and binding for future research.

¹⁴This was observed in Rögnvaldsson 1982.

5 Conclusion and issues for further research

I have shown that Bruening's (2010b) R-dative shift proposal accounts for inversion in Icelandic ditransitives and that there is a morphological restriction on the right specifier. Further, I have illustrated that inversion patterns like symmetric verb constructions and ditransitives which allow passivization of either object in that a non-structural case c-commands a structural case in the base structure. Taken together, these facts suggest that case plays a more active role than might be assumed under approaches which argue that case does not interact with the syntax in a meaningful way. The aforementioned patterns suggest that the range of syntactic structures available crucially depends on case.

In addition to solving the conundrums outlined in Section 5, another area which merits more research is exploring the degree to which Icelandic fits into one of the approaches discussed at the beginning of Section 4. At first glance, it seems that Icelandic is a perfect Alternative Projection Approach language, given that the DP-PP frame is allowed with verbs that encode physical movement of the direct object. However, some Acc-Dat verbs allow the prepositional frame without a locative interpretation, but use a different preposition. The Verb Sensitive Approach argues that variation in the allowable preposition in English is evidence that the DP-PP frame does not necessarily map to a caused motion interpretation and the same argument might be extended to Icelandic. One final issue relates to the derivational approach, which has been resuscitated by Hallman (2015). Based on evidence from the interpretation of purpose clauses, Hallman (2015) argues that the prepositional construction can either be base generated or derived from the double object construction, and this is also worth exploring in Icelandic.

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