Published in 1996 in *Working Papers in Scandinavian Syntax* 57:47-75

The Optionality of Particle Shift

Peter Svenonius
*University of Tromsø**

0. Introduction

In recent work, Chomsky (particularly 1989, 1992, 1995) develops certain principles of DERIVATIONAL ECONOMY by which simpler derivations are preferred over more complex ones. In an obvious way, a derivation in which some constituent α moves is more complex than an otherwise identical derivation in which α stays put. If grammars always require the simplest possible derivation for a given sentence, then, it has been claimed, there can be no optional movements.

There are some apparent counterexamples to the predictions of this model, including a number of constructions in which movement seems to be quite optional. A familiar example from English is the verb particle construction.

(1) a. Francis sent a search party out .
b. Francis sent out a search party.

The alternation in word order between the two examples in (1) is derived, according to all the traditional arguments, by movement; it represents a canonical example of an optional transformation in Chomsky 1957 or Emonds 1976. If the two orders are in free variation, then this poses a prima facie problem for the notion of economy as formulated. Accordingly, the first question I will address is whether the two orders really are in free variation, a subtler question than it appears at first, since it is necessary to establish what information is relevant for determining the candidate set for comparison of derivations. I will conclude that under the right conditions, variation is truly free, and that the conditions are different for English and Norwegian on the one hand, and Icelandic on the other.

Having established that there are two options in (1), and that there is nothing to distinguish them in the candidate set, it appears that one or the other exhibits an unnecessary movement, in violation of Chomsky's notion of economy. However, I will argue that a strong notion of economy can be maintained. I argue, specifically, that both of the sentences in (1) are derived by movement, and that the metric of

* Thanks to all my informants in Tromsø, Santa Cruz, and Reykjavík, and to Þorbjörg Hróarsdóttir, Øystein Nilsen, and Tarald Taraldsen for discussion. Thanks also to the organizers of and participants in the Workshop on Optionality in Utrecht in October of 1995, where an earlier version of this work was presented. Any errors in this paper are of course my own.

economy proposed in Chomsky 1995 can be adopted with only a minor adjustment; each of the two movements represented in (1) renders the other unnecessary, and neither is more economical than the other. Thus, one movement is obligatory, but economy does not determine which one.

1. Determining the members of the reference set

According to Chomsky 1995, a NUMERATION is a set of lexical items and indices (indices allow multiple occurrences of a lexical item to be distinguished). The set of CONVERGENT derivations involving a numeration is a REFERENCE SET. Principles of economy select from among the members of the reference set. The derivation, essentially, involves combining the elements in the numeration and then moving around some of the parts of the structure generated. Certain features need to be checked, and this induces movement. Any derivation in which such a feature is not checked CRASHES, and is therefore not convergent, hence not part of the reference set. But any derivation in which movements take place which do not serve to check features will be more complex than similar derivations in which those movements do not take place; economy will select the least complex alternative(s), and the more complex variants will be ungrammatical. As far as speaker intuitions go, it is probably not possible to distinguish a string which is ungrammatical because the derivation that generated it crashed from one which is ungrammatical because the derivation was not as economical as another one in the same reference set. As in Optimality theory, the best candidate is acceptable, the less good candidates unacceptable (though also as in Optimality theory, nothing rules out the possibility of a 'tie'; more on this below).

This system in itself says nothing about choosing from among sentences if those sentences contain different lexical items. *Chris says he surfs* and *Chris says that he surfs* could be in free variation, since one contains the lexical item *that* and the other doesn't. However, the focus on lexical items has some peculiar consequences. For example, it seems to imply that (the derivations generating) *Jason thinks that Kari surfs* and *Kari thinks that Jason surfs* are in the same reference set, and therefore could, in principle, compete. In just that case, competition may not matter, since both will be equally economical. But consider the pair in (2).

(2) a. Does Gary know what Hannah did?
b. What does Gary know Hannah did?

These two contain the same lexical items, and according to Chomsky's system, should be in the same reference set. Since (2b) involves an extra step of movement (or, alternatively, a longer movement) than (2a), it would seem that (2a) is more economical than (2b), and (2b) should therefore be ungrammatical. The problem is obviously that we are not

taking meaning into account. A speaker who intends what (2b) means would not be forced to consider (2a) as an alternative. Thus, following Reinhart 1993, Fox 1994, and others, I assume that the reference set is restricted to derivations with the same interpretation (I will also continue to assume that the members of the reference set are convergent and utilize the same numeration). Now, the question arises, what aspects of interpretation are relevant?

For example, say that the reference set includes derivations which yield the same logical representation (LR), a truth-conditional representation derived from an LF structure (cf. Kamp 1981, Heim 1982). One kind of interpretational effect which is represented in an LR is the relative scope of various elements such as quantifiers. Thus the two sentences in (3) would have different LRs.

(3) a. Usually everybody watches the Simpsons.
b. Everybody usually watches the Simpsons.

In sentence (3a), the adverbial scopes over the subject, whereas sentence (3b) has a fairly salient reading in which the subject is interpreted as scoping over the adverbial. Ignoring the other reading of (3b) (which is identical to that of (3a)), we can say that the two sentences correspond to two different LRs. Thus, even if they involve a different number of steps syntactically (say that in (3b) the subject has raised across the adverbial), they do not belong to the same reference set and will not be compared, so there is no reason to expect one of them to be ungrammatical.

However, since this kind of adverbial scope is part of an LR, it is reasonable to assume that scope is always represented in an LR, even when it has no semantic significance (cf. May 1985), for example in (4).

() a. Every day, everybody watches the Simpsons.
b. Everybody watches the Simpsons every day.

Although the examples in (4) are logically equivalent, they plausibly have different LRs. It might be, then, that even if (4a) and (4b) represent two unequally economical derivations from the same numeration, there is no problem for economy.

For this reason it is important to establish whether an apparently optional movement *ever* has an effect on interpretation. It is also important to decide whether this effect should be represented in the LR, or at some other level, and whether LR really is the level of representation relevant for determining the reference set.

2. Non-optionality in the Verb-Particle Construction

The free variation of the verb-particle construction is generally taken for granted. However, in the present context of Economy principles, it is important to consider the nature of this optionality more carefully. As with the quantifier scope case, if there is a meaning difference in one set

of examples (say, those with indefinite DPs), then this may be relevant even if another set of examples shows no meaning difference. On the other hand, I need to first exclude a number of cases where the difference in grammaticality does not have anything to do with meaning.

First, note that there are clear cases of non-optionality, long noted. For example, if the DP is an unstressed pronoun, then it must precede the particle.

(5) a. Lock it up.
b. * Lock up it.

Pronouns have different distribution from full DPs in a number of constructions (cf. e.g. Zwicky 1986), so I will set these aside for the moment although I will return to them later.

Second, if the DP is phonologically very heavy, then it must follow the particle.

(6) a. * Lock all the doors on the second and third floors that lead into rooms with expensive equipment in them up.
b. Lock up all the doors on the second and third floors that lead into rooms with expensive equipment in them.

This effect is clear in examples like (6), and becomes weaker as the DP becomes shorter.

(7) a. ? Lock all the doors on the second and third floors up.
b. ? Lock all the doors to rooms with equipment up.

The effect may be due to the difficulty of parsing the final particle. Since the verb *lock* is not obligatorily a particle-verb, the direct object makes the sentence grammatical, and the *up* is superfluous. Compare

(8) a. Turn all the lights on the second and third floors off.
b. Turn all the lights in rooms with equipment off.

These sentences are not bad, possibly because of the fact that *turn ... lights* is not likely to be a simple transitive verb; the cue that more is forthcoming comes early. Of course, if the hearer has to wait very long before that part comes, the sentence can be degraded anyway, but an example like (9) seems not as bad as examples like (6a).

(9) ?? Turn all the lights in rooms on the second and third floors that have equipment in them off.

Furthermore, very heavy DPs alternate in order even with non-particle elements, in the Heavy NP Shift construction. It seems reasonable, then, to exclude examples with very long DPs as possibly irrelevant and to focus on DPs of ordinary length (cf. Svenonius 1992 for arguments that particle shift does not involve Heavy NP Shift, contra Kayne 1985).

Third, particles which are modified (by elements such as *right*) or which have complements (i.e. are prepositional) must follow the DP. I will not have much to say about such cases here, but return to them briefly below.

(10) a. Curt wrung the towel right out.
b. * Curt wrung right out the towel.
c. The butler brought the bags in the house.
d. * The butler brought in the bags the house.

The core cases, then, are those in which a full DP of some modest length appears with an unmodified, intransitive particle, as in (11).

(11) a. Clean that mess up.
b. Clean up that mess.

Below I will discuss whether these alternatives are in truly free variation in English, Norwegian, and Icelandic.[1]

2.1. English

There are of course certain combinations which require or favor one order over the other, but I exclude those from consideration, as the majority of particle verbs behave as I describe below.

There are speakers of English for whom the order particle – noun phrase (henceforth Prt-DP) is generally preferred over the opposite order. This tendency manifests itself as a mild preference, overriden by the factors mentioned above, e.g. modification of the particle, but also by matters of intonation and information structure. I will return to such speakers briefly below, but first I will discuss what I take to be the majority pattern, based on the speech of middle class Americans.

First, consider the contrast between (12a) and (12b), in the following context: somebody walks into the room where you are sitting, engaged in the activity of balloon inflation, and asks you what you're doing.

(12) a. – I'm blowing balloons up.
b. I'm blowing up balloons.

For some speakers,[2] there is a contrast here; (12b) sounds more natural, with a neutral intonation. The slight preference for (12b) is indicated in

---

[1] Swedish and Danish do not show optionality; see Faarlund 1977, Taraldsen 1983, 1991, or Svenonius 1996. In Svenonius 1996 I classify Faroese with Danish, though it does appear to show optionality in a number of cases; see Sandøy 1976.

[2] Eight of twelve native speakers polled, for this example. The other four showed no sensitivity to the definite-indefinite variations discussed here, either accepting both orders in all cases (one speaker) or showing a slight preference for particle-DP order in all cases (three speakers).

(12) by the minus sign in front of (12a). Now consider a slightly different example, with a slightly different context: the person who walks into the room knows that there is going to be a party, that you are making preparations, and furthermore that there are balloons. He asks the same question, "What are you doing?"

(13) a. I'm blowing the balloons up.
b. I'm blowing up the balloons.

No preference for (13b) is noted in this pair; in fact, the DP-Prt order is more likely to be preferred.[3]

Consider a very similar set. You want to know how we can publicize our political rally. I respond:

(14) a. – I'll send flyers out.
b. I'll send out flyers.

For many speakers, the second example is more natural; (14a) is also possible, but requires a slightly marked stress on *flyers*. Now consider a situation in which we both are involved in planning the political rally, and you are aware that there are flyers. Now you ask me what task I want to be in charge of, and I tell you:

(15) a. I'll send out the flyers.
b. I'll send the flyers out.

Here, again, the alternatives are more or less equal, and if there is a preference, it is for DP-Prt.

At first blush, it appears that the verb-particle construction in English, like scrambling in German (cf. Diesing 1992) or Dutch (cf. de Hoop 1992) or object shift in Icelandic (cf. Rögnvaldsson 1982), might be sensitive to definiteness. However, I suggest that this is not the case. Note first that the preferences are rather subtle (at least for most speakers), and fluctuate with intonation. I suggest that intonation is actually what detmines these preferences. It is natural to place focus pitch on an element which is informationally novel, as with indefinites generally and with the indefinites in (12) and (14) in particular. It is also natural in English for there to be a rising pitch at the right edge of a simple sentence. In the (b) sentences, the sentence-final rise in pitch coincides perfectly with the raised pitch of the novel indefinite. In the (a) sentences, either there are two pitch-peaks in a row, or the sentence-final boundary tone has to be reduced. Either of these options is slightly marked, phonologically speaking.

---

[3] Of speakers who have any definite-indefinite sensitivity, more than half tend to prefer examples like (13a) over (13b); most of the rest have no preference, and a small minority prefer (13b).

As for the case with the familiar definites, there is no special reason to place focus pitch on those elements. The new information is basically the whole verb phrase, and a focus pitch, if any, could just as easily fall on the particle as the DP. A clearer contrast for definites can be demonstrated when a definite is used epithetically, that is, when its reference is presupposed to be understood and its content is not informative. Ordinarily, a pronoun is used in such a case, but it is possible to use a destressed full DP. For example, imagine a situation in which there are two girls, Turid and Ingrid, and you want to know about their transportation. You ask, "How are Turid and Ingrid going to get here?" and I respond:

(16) a. I'll pick the girls up.
b. – I'll pick up the girls.

Of course, *them* would be more natural here, but a destressed *the girls* is possible. In such a case, (16a) is clearly preferred over (16b). Again, a phonological explanation is quite straightforward. The epithetic DP is preferably destressed, and if it is not at the right edge of the sentence there is no problem. But if it does wind up at the right edge of the sentence, then either the boundary tone falls on the DP, stressing it, or the boundary tone must be shifted to the left.

Now, if there is some element at the right edge of the VP which can take the boundary tone, then the epithetic definite is much better.

(17) a. I'll pick the girls up in my car.
b. I'll pick up the girls in my car.

Here (17b) is not appreciably degraded.

Now, I have suggested that the reason the novel indefinites in (12) and (14) are preferred following the particle is not because they are novel indefinites per se, but because they bear focus stress. This means that if a definite DP bears focus stress, it should also be preferred after the particle. This can easily be demonstrated. Consider a context in which I know different rides have been arranged for the boys and for the girls, and I ask, "Who will you pick up? (with stress on *you*). Now the same strings as in (16), repeated here as (18), are possible, but the preferences are reversed. The natural intonational pattern places stress on *the girls*, destressing the verb-particle as old information, and the Prt-DP order in (18b) is slightly more natural.

(18) a. – I'll pick the girls up.
b. I'll pick up the girls.

All of these effects can be repeated with quantified DPs with both strong and weak readings (in Milsark's sense): if there is focus stress on the DP, it is slightly better, for many speakers, after the particle.

Now, recall the discussion from §1. The convergent derivations involving the same numeration and the same Logical Representation are compared, and the most economical of them is grammatical, while less economical alternatives are ungrammatical. None of the alternatives considered here involved different lexical items, so the next question is, do they involve different LRs? I assert that they do not. Although the novel indefinite may be preferred after the particle, placement before the particle does not change the possible interpretations. Granted this, we must assume that the derivations leading to the different word orders in the examples above are in the same reference set. Now, if one derivation were more economical than the other, then it would be grammatical and the other would not be. However, none of the sentences in examples (12-18) are ungrammatical; instead, there are slight preferences noted by a majority of speakers (and no preferences for other speakers). If, on the other hand, both derivations are equally economical, then the grammar will not choose between them. I suggest that this is the case (the specifics of the derivations are worked out in §4). The two derivations are exactly equal in terms of the grammar, but one is in some cases phonologically more harmonious than the other. Given two equally grammatical outputs, a speaker is free to use other, non-grammatical, criteria to decide which of them to use.

Note that the obligatoriness of the DP-Prt order when the DP is a pronoun is consistent with the stress facts, but is probably too strong to be entirely due to them (a slightly different kind of prosodic account is worked out in Svenonius 1994, Ch. 3, §3.5). Similarly, the DP-Prt order is obligatory when the particle is modified (e.g. *Bring the papers right up*/**Bring right up the papers*), and this is consistent with the fact that a modified particle is likely to be stressed (most of the possible modifiers have to do with emphasis), but the effect appears to go beyond the kinds of mild preferences noted here for clashes between focus stress and the boundary tone. Another possibility is that a particle with other material in its immediate projection forms a phonological phrase with that material, and that this leads to a better phonological contour than the alternative, but again this does not seem to be enough to account for the severe degradation of such examples. A syntactic explanation is developed in den Dikken 1995; another in Svenonius 1996.

It is possible that speakers who report a mild preference for Prt-DP regardless of the stress on the DP also prefer this for phonological reasons, but without having examined possible difference in those speakers' sentential phonology, further speculation would be premature.

2.2. Norwegian

In Norwegian, as in English, the two orders are generally both grammatical. Also as in English, pronouns must precede the particle, and very heavy DPs must follow it.

(19) a. Han spiste tørrfisken opp. (Nor)
b. Han spiste opp tørrfisken.
he ate up the.dry.fish up
'He ate up the dried fish'

(20) a. Han spiste den opp.
b. * Han spiste opp den.
he ate up it up
'He ate it up'

(21) a. * Han spiste alle de fine smørbrødene som betjeningen
he ate all the nice the.butter.breads as the.staff
hadde lagt ut til gjestene opp.
had laid out to the.guests up
b. Han spiste opp alle de fine smørbrødene som betjeningen
he ate up all the nice the.butter.breads as the.staff
hadde lagt ut til gjestene.
had laid out to the.guests
'He ate up all the nice sandwiches that the staff had set out for the guests'

Also as in English, there are speakers who prefer the order Prt-DP in general, overridden by the factors above and by matters of intonation and information structure as in English. In fact, such a preference is quite common (Faarlund 1977 reports it as the pattern for Norwegian in general), especially in Western Norway. Sandøy 1976 reports that in Romsdalsmål, a western dialect, only the Prt-DP order is used in the absence of overriding factors (in addition to the factors above, Sandøy also notes that contrastive stress on either the particle or the DP can permit the DP-Prt order). However, I will again describe the language of speakers who have something closer to true optionality.

Among those speakers, the same slight preferences are noted for novel indefinites with focal stress and destressed familiar definites as were noted for English. In a context in which the presence of balloons is not presupposed, (22b) is preferred over (22a).

(22) a. – Jeg blåser ballonger opp. (Nor)
b. Jeg blåser opp ballonger.
I blow up balloons up
'I'm blowing up balloons'

In a context where the presence of balloons is assumed known, (23a-b) are basically equally good, with some speakers showing a very slight preference for (23a) over (23b).

(23) a. Jeg blåser ballongene opp. (Nor)
b. Jeg blåser opp ballongene.
I blow up the.balloons up
'I'm blowing the balloons up'

In addition, the preference is stronger if the DP is epithetic.

(24) Q: How will Ingrid and Turid get here?
a. Vi skal plukke jentene opp. (Nor)
b. – Vi skal plukke opp jentene.
we shall pick up the.girls up
'We'll pick the girls up'

And the preferences are reversed for definite DPs if the particle-verb is old information and the DP is new information.

(25) Q: Who have you picked up?
a. – Vi har plukket jentene opp. (Nor)
b. Vi har plukket opp jentene.
we have picked up the.girls up
'We've picked up the girls'

I asserted above that the different orders in English do not lead to different interpretations. This is also true of the Norwegian, and in fact, an even stronger demonstration that a weak indefinite can appear before the particle is possible using Norwegian data. There, impersonal constructions are generally possible with unaccusative and passive verbs, and the associated DP there is subject to the definiteness restriction. Examples of impersonal constructions with unaccusative particle verbs are shown in (26). Both orders are possible, though the particle-first order is preferred.

(26) a. – Det datt noen jordbær ut. (Nor)
b. Det datt ut noen jordbær.
there fell out some strawberries out
'Some strawberries fell out'
c. – Det ramlet tre flasker ned.
d. Det ramlet ned tre flasker.
there tumbled down three bottles down
'Three bottles tumbled down'

In the dispreferred order, as in (22) above, the DP does not acquire a strong reading. It is still weak, in the Milsarkian sense. The preference here for the Prt-DP order is more strongly felt than in (22),[4] but I assume that that is due to the fact that this sort of construction is used for presentational focus, so that focus stress is actually required, rather than simply preferred, on the DP.

[4] In fact to the point where some speakers, though by no means all, actually reject the DP-Prt order in (26) without exceptional contexts (e.g. modifying the particle or making it contrastive).

It seems, then, that the English analysis can be imported directly into Norwegian: the syntax provides two equally good alternatives, and speakers may choose the one which is smoothest intonationally.

2.3. Control of PRO

Taraldsen 1983 suggests that there are interpretational differences between the two orders. Specifically, he suggests that a DP preceding a particle can control PRO in a purpose clause, whereas DP following a particle cannot. His examples (119-120), p. 242, are given here in (27).

(27) a. Vi jaget ulven ut for å gjenfinne sin tapte frihet.
b. * Vi jaget ut ulven for å gjenfinne sin tapte frihet.
we chased out the.wolf out for to again.find RFX lost freedom
'We chased out the wolf to refind his lost freedom'

This contrast has a straightforward explanation within the analysis of the verb-particle construction developed in Svenonius 1994, 1996 (and summarized below in §3), given two ancillary assumptions: that a DP must c-command a purpose clause at S-structure in order to control it (setting aside for a moment the Minimalist elimination of S-structure), and that purpose clauses can be adjoined to the right of various kinds of projections (setting aside Kayne's 1994 antisymmetry condition). The idea is basically that the DP in (27a) has raised to a higher specifier position, while the DP in (27b) remains low (in another specifier position, SpecPP). If the purpose clause is adjoined to the right of some projection in between the low and the high positions (e.g. PP), then the DP *ulven* 'the wolf' in (27a) but not in (27b) will c-command it.

On such an account, the difference between DP-Prt and Prt-DP variants of sentences with particle verbs and no result clause would presumably not show up in the LR, so examples like (27) would not lead us to place the two orders in different reference sets generally. However, note that the Minimalist program eschews reference to S-structure. If we say that control requires c-command at LF, then the DP in (27a) must also be higher at LF than the one in (27b); this might very well lead to a consistent difference in LRs and therefore distinct reference sets for the different orders for all verb particle constructions.

It is therefore worth looking at the evidence a bit more closely. As it turns out, not all speakers have the contrast represented in (27). In fact, there seems to be a great deal of variation on this point, and many speakers reject object control in both examples in (27). Other examples, such as those in (28-30) below, are more widely accepted, but even there there is a great deal of variation. Three patterns emerge: some speakers reject object control in all such cases, other speakers accept it in some cases but do not distinguish between the two orders, and finally there is

the pattern represented here, with some preference for the DP-Prt order, on the object control reading.[5]

(28) a. Vi slapp Øystein inn for å lete etter skoene sine. (Nor)
b. ? Vi slapp inn Øystein for å lete etter skoene sine.
we let Øystein inn for to look after the.shoes RFX
'We let Øystein in to look for his shoes'

(29) a. Vi syket Line opp for å løpe.
b. ? Vi syket opp Line for å løpe.
we psyched up Line up for to run
'We psyched Line up to run'

(30) a. Vi løftet Geir opp for å se over muren.
b. ? Vi løftet opp Geir for å se over muren.
we lifted up Geir up for to see over the.wall
'We lifted Geir up to see over the wall'

Speakers who reject all examples may simply not allow attachment of the purpose clause to the low projection (PP), only to some higher projection (e.g. VP), where it can only be controlled by the subject. Speakers who accept all examples might allow attachment to an even lower projection (P', for example). But suppose that the acceptance of the (b) examples by some speakers indicates that for them, LF raising of the object to the higher specifier position is sufficient to control PRO (I will in fact suggest in §4 below that the DP does raise at LF). Now, a dialectal variation placing control in LF for some speakers and at S-structure for others is clearly not an ideal solution, and we would expect it to manifest itself in other parts of the grammar as well.

Instead, I suspect that the problem may have to do with when the particle can be separated from an adjunct in its projection. Recall from §1 that particles with modifiers and complements cannot precede the DP. If we model the Prt-DP order as involving Prt movement to the left, across the DP (as I do in §3 below), then the generalization is that particles with modifiers and complements cannot move to the left. It seems that various kinds of adjuncts, when we can be certain they are in the projection of the particle, and not in the projection of the VP, inhibit leftward particle shift.

---

[5] Two of eight subjects rejected all such sentences; four accepted some, including at least those in (28-29), but with little or no difference between the two orders, and two found a contrast in the indicated direction (including Taraldsen).

(31) a. Curt wrung the towel right out.
b. * Curt wrung out the towel right.
c. Elisabeth hoisted the bucket up in the air.
d. ? Elisabeth hoisted up the bucket in the air.
e. We sent the messenger away again.
f. * We sent away the messenger again.
(good only where *again* scopes over *sent*)

Now, if not all adjuncts create this effect for everyone, then the speakers who accept both (a) and (b) examples in (28-30) might allow particle movement despite a purpose clause being adjoined to a projection of the particle, while those speakers who get a contrast resist movement of the particle in those cases. The prediction would be that permissive speakers might be more likely to accept certain sentences like (31b, d, f) above, but I have not tested this prediction.

The contrast Taraldsen notes for Norwegian also exists in English, and here the pattern might even be clearer, with fewer speakers reporting both examples to be good. For most, the (b) sentences range from ungrammatical to dispreferred.[6]

(32) a. We let Max in to look for his shoes.
b. ? We let in Max to look for his shoes.

(33) a. We psyched Amy up to race.
b. ? We psyched up Amy to race.

(34) a. We lifted Gary up to see over the wall.
b. ? We lifted up Gary to see over the wall.

For speakers who regard the (b) sentences as dubious (with object control), movement of the particle when there is an adjunct leads to grammatical ill-formedness. For other speakers, who only report mild dispreference, it might be that another phonological constraint is at work, for example if the purpose clause is preferably parsed phonologically along with the particle, but can also form its own phonological phrase.

The conclusion is that control of PRO does not force a semantic difference in the interpretation of the DP-Prt and the Prt-DP orders. Since I am not aware of other evidence of one, I will continue to assume that there is none.

2.4. Icelandic

The general situation in Icelandic is that the pattern with respect to pronominal DPs, very heavy DPs, and modified particles is identical to

[6] Of twelve informants, two accepted both variants in most cases; of the others, on average two found the (b) examples bad, four found them questionable, and four found them acceptable but dispreferred.

that of English and Norwegian. The following examples demonstrate this (cf. Thráinsson 1979, whence (37), and Rögnvaldsson 1982).

(35) a. Ég gerði nokkra bíla upp. (Ice)
b. Ég gerði upp nokkra bíla.
I fixed up some cars up
'I fixed up some cars'

(36) a. Ég gerði hann upp .
b. * Ég gerði upp hann.
I fixed up it it
'I fixed it up'

(37) a. * Þeir færðu alla stóru skápana sem Jón hafði flutt með
they moved all big the.cabinets that Jon had taken with
sér heim frá Ameríku til.
RFX home from America to
b. Þeir færðu til alla stóru skápana sem Jón hafði flutt með
they moved to all big the.cabinets that Jon had taken with
sér heim frá Ameríku.
RFX home from America
'They moved around all the big cabinets that Jon had taken home with him from America'

Beyond this, there is a slight tendency for most speakers to prefer the DP-Prt order in most cases (note that this is the opposite of the tendency noted for some English speakers and many Norwegians). However, in the general pattern of things, I have not found any indications that stress or pitch plays any role. Instead, it seems that the definiteness of the DP is relevant.

With quantified DPs, as in Thráinsson's (1979:28) examples given in (38), speakers generally find both examples equally good or have a very slight preference for the DP-Prt order. However, with simple definite DPs, there is a much clearer preference for the particle-last order, as indicated in (39).

(38) a. Þeir færðu alla bílana til. (Ice)
b. Þeir færðu til alla bílana.
they moved to all the.cars to
'They moved all the cars around'

(39) a. Þeir færðu bílana til.
b. – Þeir færðu til bílana.
they moved to the.cars to
'They moved the cars around'

The effect is more salient and more consistent that the effects noted with minus signs in the previous sections; nevertheless, a question mark in (39b) would be too strong; the particle-first order is simply dispreferred. The degrees of awkwardness varies from speaker to speaker, from context to context, and from particle verb to particle verb. Heavier DPs improve the particle-first order, but the preference is still noted with simple modified definites, as in (40), and demonstratives, and possessives.

(40) a. Þeir færðu nýju bílana til. (Ice)
b. – Þeir færðu til nýju bílana.
they moved to new the.cars to
'They moved the new cars around'

(41) a. Þeir færðu þessa bíla til.
b. – Þeir færðu til þessa bíla.
they moved to these cars to
'They moved these cars around'

(42) a. Þeir færðu bílana þeirra til.
b. – Þeir færðu til bílana þeirra.
they moved to the.cars their to
'They moved their cars around'

All quantifiers and numerals allow pre- or post- particle placement, without the preference induced by definites.

(43) a. Við hentum {mörgum/flestum/nokkrum/öllum} hundum út.
b. Við hentum út {mörgum/flestum/nokkrum/öllum} hundum.
we threw out many most some all dogs out
'We threw out {many/most/some/all} dogs'

Unmodified indefinites are preferred after the particle, as seen in the examples in (44-47).

(44) a. – Þjónninn ber töskur inn. (Ice)
b. Þjónninn ber inn töskur.
the.butler carries in bags in
'The butler is carrying in bags'

(45) a. – Við hentum hundum út.
b. Við hentum út hundum.
we threw out dog out
'We threw out a dog'

(46) a. – Þeir flytja sódavatn út.
b. Þeir flytja út sódavatn.
they move out soda.water out
'They export soda water'

(47) a. – Ég tók kartöflur upp.
b. Ég tók upp kartöflur.
I took up potatoes up
'I picked up potatoes'

This makes the Icelandic pattern appear somewhat similar to the pattern in Norwegian and English: a definite DP precedes a particle, an indefinite DP follows one. But the resemblence is superficial. Controlling for focus stress, the tendency vanishes in English and Norwegian, but remains in Icelandic. Even making the indefinites in (44-47) epithetic (e.g. by using (47) as the answer to "What did you do with potatoes?") has no effect. Note also that the crucial factor here is morphological definiteness, not interpretational (Milsarkian) strength or weakness: the orders in (44-47) hold whether the interpretation is existential or generic. Also cf. (38), where the quantifier is strong and the DP gets a partitive interpretation, but the DP is still not treated as "definite" in the relevant sense. When an indefinite is modified, it patterns with quantified DPs (cf. similar observations regarding indefinites in subject positions, in Vangsnes 1995).

(48) a. Við hentum svarta hundum út. (Ice)
b. Við hentum út svarta hundum.
we threw out black dog out
'We threw out a black dog'

There are suggestive similarities between particle shift and object shift, and between particle shift and the possibility of different subject positions, discussed in Jonas & Bobaljik 1993, Holmberg 1993, Vangsnes 1995, Bobaljik & Jonas 1996, and Svenonius 1996. The problems with unifying object shift with particle shift are many, as Rögnvaldsson 1982 has shown; I review the facts in §2.5 below. The subject position phenomena are more similar. There, as in the verb particle construction, quantified DPs may freely occupy either position. Definite DPs, on the other hand, must precede adverbials, and bare indefinites are subject to special restrictions. Thus, the two effects, particle shift and the alternation between the two subject positions, and to a lesser degree also object shift, all pick out the same classes of DPs, showing that these classes are significant to Icelandic syntax. Possibly, all three effects involve the DP appearing in the specifier positions of two different heads (as in the references just cited); we may speculate that definite DPs in Icelandic bear some feature whose checking requirements are different from those of other DPs (cf. Vangsnes 1995 for a specific

proposal regarding subject and object positions). However, it is not immediately clear how a feature checking analysis could account for the slight preferences discussed here.

2.5. Object Shift

As Rögnvaldsson 1982 notes, the basic pattern of particle-DP alternation is similar to that of object shift. Object shift is taken to move object DPs to the left of the VP boundary, so that they precede VP-adjoined adverbials. Object shift affects pronouns obligatorily, and definite DPs optionally, so that the patterns are as in (49-50) (from Rögnvaldsson 1982:108).

(49) a. Ég sá bílinn oft. (Ice)
b. Ég sá oft bílinn.
I saw the car often the.car
'I saw the car often'

(50) a. Ég sá hann oft.
b. * Ég sá oft hann.
I saw it often it
'I saw it often'

As with particle shift, heavy DPs are preferred in the rightmost of the two positions. However, it is clear that particle shift is not simply a subcase of object shift. First of all, object shift is dependent on verb movement, so that there is only one possible order after a non-finite verb, whether the adverbial is a VP-initial adverb, as in (51), or a VP-final adverb, as in (52).

(51) a. * Ég hef bílinn oft séð . (Ice)
b. Ég hef oft séð bílinn.
I have the.car often seen the.car
'I have often seen the car'

(52) a. Ég hef séð bílinn hér.
b. * Ég hef séð hér bílinn.
I have seen the.car here the.car
'I have seen the car here'

Particle shift is independent of verb movement, so the pattern is identical after a participle or other non-finite verb form as it is after a finite verb, as indicated in (53).

(53) a. Ég hef gert bílinn upp. (Ice)
b. – Ég hef gert upp bílinn.
I have fixed the.car up the.car
'I have fixed the car up'

Another important difference is that non-definite DPs simply do not undergo object shift, as indicated in (54), while they freely participate in particle shift, as indicated above, e.g. in (35) above, repeated below as (55).[7]

(54) a. * Ég sá nokkra bíla oft . (Ice)
a. Ég sá oft nokkra bíla.
I saw some cars often some cars
'I often saw some cars'

(55) a. Ég gerði nokkra bíla upp.
b. Ég gerði upp nokkra bíla.
I fixed some cars up some cars
'I fixed up some cars'

Finally, there is the fact that the preference noted in (39-42) for definite DPs to precede the particle is not as strong in the object shift construction, where both orders are pretty much equally good with a simple definite noun, a simple modified definite, a demonstrative, or a possessive.

(56) a. Ég barði (svarta) hundinn ekki. (Ice)
b. Ég barði ekki (svarta) hundinn.
I beat not black the.dog not
'I didn't beat the (black) dog'

(57) a. Ég barði {þessa hunda/hundinn minn} ekki.
b. Ég barði ekki {þessa hunda/hundinn minn}.
I beat not this dog the.dog my not
'I didn't beat {this dog/my dog}'

Thus I conclude, following Rögnvaldsson, that object shift should not be collapsed with particle shift. However, the fact that it also affects the class of morphologically definite noun phrases, rather than destressed noun phrases (as with English particle shift) or Milsarkianly strong DPs (as with German and Dutch scrambling), suggests that the same grammatical category or feature is involved.

3. The Structure of the Verb Particle Construction

The foregoing has established that although the various languages with particle shift may exhibit preferences for one order over the other in various cases, there is truly free variation at some basic syntactic level, for some large set of core cases, without any difference in interpretations

[7] Diesing & Jelinek 1993 provide an example of an indefinite undergoing object shift, but such examples require heavy contrastive stress on the verb (cf. Svenonius 1994:213, fn. 23).

or reference sets. Given the assumptions about economy outlined in §1, this means that economy must not be able to distinguish between the two derivations. In this section I will sketch an analysis of the verb-particle construction, and in §4 I show the derivations in detail. I will not present arguments for the structure that I propose, as I have done so elsewhere at length (Svenonius 1994, ch. 3; 1996), and want to dedicate the space available here to exploring other issues.

3.1. The basic structure

Basically, I assume a biclausal-type structure for the verb-particle construction, as in Bolinger 1971, Kayne 1985, and den Dikken 1995, among others. More specifically, I assume that the verb selects a small clause containing at least one functional head, which in turn selects the lexical projection of the particle (a PP), as diagrammed in (58), where the functional head of the small clause is labelled PRED, for predicator, essentially as in Bowers 1993.

(58) Max [$_{VP}$ smoked [$_{PredP}$ the cat Pred [$_{PP}$ t_d out]]]

I assume that the DP *the cat* originates as an argument of the particle *out*, within the maximal projection of *out*, as indicated by the trace. It moves up into the Spec position in the functional projection dominating *out*, because of the EPP (I will discuss this further below). The PredP in (58) is a completely typical small clause: it has a subject (*the cat*), a lexical predicate (*out*), and a functional head (Pred). Other small clauses are assumed to be exactly the same in structure, as suggested in (59).

(59) a. I [$_{VP}$ consider [$_{PredP}$ the cat Pred [$_{AP}$ t_d annoying]]]
b. I [$_{VP}$ want [$_{PredP}$ the cat Pred [$_{PP}$ t_d out]]]
c. I [$_{VP}$ saw [$_{PredP}$ the cat Pred [$_{VP}$ t_d sneak in]]]

In each of these cases, the construction can be claimed to be wholly compositional: the object of my assessment (my 'considering') in (59a) is a proposition, that of the cat's being annoying. The object of my desire in (59b) is a state of affairs, that involving the cat being outside. And the object of my perception in (59c) is an event, that of the cat sneaking in. These matters are taken up in greater detail in Svenonius 1994. But notice that the verb particle construction does not quite fit this mold: it cannot be said that the object of Max's smoking is the cat's being out (not unless object is taken to mean 'purpose,' in contrast with the examples in (59)). Instead, in a Dowtian lexical semantic representation (e.g. *Max causes the cat to go out by smoking*), the activity described by the main verb becomes subordinate to the primitive predicate CAUSE (Levin & Rapoport 1988 call this LEXICAL SUBORDINATION). The meaning of the main verb shows up in what looks like a manner or means adjunct (Jackendoff's 1990 SUPERORDINATE ADJUNCT). This is exactly what happens in the case of resultatives like *I beat the cat senseless* or *I*

ran my sneakers to shreds (cf. Hoekstra 1988 for arguments that resultatives involve small clauses).

This complexity in the interpretation of the structure is due to the fact that the verb and particle are associated in a more intimate way than the small clause taking verbs in (59) are with the lexical heads of their complements. I analyze this intimate relation as l-selection in the sense of Pesetsky 1995, and assume that it requires LF incorporation of the particle into the verb. The relevance of this will become apparent in §4.

3.2. Particle Shift

In the framework adopted here, overt movement is driven by strong features. For example, the requirement that every clause have a subject, the EPP (EXTENDED PROJECTION PRINCIPLE) of Chomsky 1981, is the result of a strong nominal feature in the functional head of the clause. For Chomsky 1995, the head of the clause is T, and the strong nominal feature is tentatively identified as D. For present purposes, I will assume that the head of the clause is Pred, and that the nominal feature is N.[8]

Strong features cause a derivation to terminate if they are not checked before the projection containing them is embedded (or they cause the derivation to crash at PF, as in Chomsky 1992). Thus, strong features must be eliminated, through FEATURE CHECKING, prior to Spell Out. Features are checked by an element bearing the appropriate features when that element is in the CHECKING DOMAIN of the features to be checked (essentially, α is in the checking domain of a head β when α is adjoined to β or in the specifier of the phrase projected by β; cf. Chomsky 1995).

When a DP moves to SpecPredP, its features enter the checking domain of Pred. Thus, the strong N feature in Pred is checked against the categorial N feature of the DP, and eliminated (ERASED). This, we may assume, is exactly what motivates the movement represented in (58-59) above, or the identical one in (60).

(60) I [$_{VP}$ let [$_{PredP}$ the cat Pred [$_{PP}$ t_d out]]]

If *the cat* remained in SpecPP, it would be too far away from Pred, outside its checking domain; the strong N feature in Pred would therefore remain unchecked, causing the derivation to crash. However, consider the alternative order in *I let out the cat*. Here, the particle precedes the DP. If the structure is as I have suggested, then the only possible analysis for

---

[8] The reasoning is roughly thus: I need the functional head to be one that is included in small clauses, since they are subject to the EPP, and since it is far from clear that they have Tense, it seems less controversial to use a label like Pred for that head. As for the nominal feature, I will argue below that particles can check it, and the rationale for this is more consistent with their having N features (general nominal features) than D features (referential features).

that order is as in (61), where *out* has moved to Pred and *the cat* has remained in SpecPP.

(61) I [$_{VP}$ let [$_{PredP}$ out-Pred [$_{PP}$ the cat t_p]]]

Observationally, it appears that the movement of *out* to Pred serves to check the strong N features there. It is true that a head adjoined to Pred is in Pred's checking domain. But we must furthermore assume that the particle *out* bears a nominal categorial feature. Is this plausible? Perhaps. Prepositions are closely associated with the nominal system, and often serve as Case markers, as if they were pure reflections of nominal morphology. Grimshaw 1991 argues that prepositions are part of the extended projection of the noun phrase, which is then PP-DP-NP, in parallel with the CP-IP-VP of the clause. This would lend credence to the notion that a preposition could in general bear a nominal feature sufficient to satisfy the EPP. Furthermore, there are cases where a PP appears in subject position, at least in equative constructions (*In a minute is when I'll do it*) and possibly locative inversion constructions (cf. Bresnan 1990).

In Svenonius 1996 I suggest that a particle bears an N feature just when it has incorporated into it an abstract nominal complement. The idea is that the prepositions in (62a-b) and the particles in (62c-d) are distinct only in that the latter have internalized their complements.

(62) a. Judith threw the TV out the window.
b. Jorge sent the plumber up the ladder.
c. Judith threw the TV out.
d. Jorge sent the plumber up.

The prepositions in (62a-b), with overt complements, do not bear a nominal feature. Thus they cannot check the EPP feature, and particle shift is impossible. The particles in (62c-d), on the other hand, have incorporated complements and therefore bear nominal features, making (63c-d) possible.

() a. * Judith threw out the TV the window.
b. * Jorge sent up the plumber the ladder.
c. Judith threw out the TV.
d. Jorge sent up the plumber.

I will assume, then, that whatever feature is responsible for EPP effects (I will continue to call it N) is borne by the particle in the verb particle construction.

4. Economy

4.1. The formalism

Now the question of why the optionality of particle shift does not violate economy can be addressed. The categorial N features on the DP and the particle are innocent; they are not strong features, and do not need to be checked. The N features on Pred, however, are strong, and must be checked. But Pred does not care what element arrives on the scene to check those features. In the formulation of Chomsky 1995, the MINIMAL LINK CONDITION (MLC) requires that the CLOSEST element to Pred which can check its strong features be ATTRACTED to Pred, where closeness is defined in terms of MINIMAL DOMAINS. Minimal domains are defined as in (64) (from Chomsky 1995:299).[9]

(64) For α a feature or X^0 category, CH the chain (α, *t*) or the trivial chain α:
   i. MAX(α) is the smallest maximal projection including α
   ii. The *domain* δ(CH) of CH is the set of categories included in MAX(α) that are distinct from and do not contain α or *t*
   iii. The *minimal domain* MIN(δ(CH)) of CH is the smallest subset K of δ(CH) such that for any $\gamma \in \delta$(CH), some $\beta \in$ K reflexively dominates γ.

Roughly, the minimal domain of an unmoved head X includes the specifier of XP, any phrase adjoined to that specifier, a head adjoined to X, and a complement to X. The minimal domain of a head Y adjoined to X also includes the specifier of XP, any phrase adjoined to that specifier, and a head adjoined to X, but not the complement of X, since it will contain a trace of Y. The minimal domain of Y does include phrases contained within the YP complement of X (e.g. its specifier and complement). Next, closeness can be defined. Here the definition adopted depends on whether one includes AgrP (as in Chomsky's §4.5) or not (as in §4.10). I adopt the formulations from §4.10 (adapted slightly here).[10,11]

---

[9] Slightly revised from Chomsky 1992:11-12. A segment-category distinction is assumed. The category α INCLUDES β if $\alpha \neq \beta$ and every segment of α dominates β; the category α CONTAINS β if some segment of α dominates β.

[10] Originally: "β is *closer* to K than α", rather than "β is *closer* to τthan α". Of course, elements higher than the target must be excluded from consideration.

[11] Earlier formulations of closeness are chiefly different in omitting clause [i] of (65); in what follows, clause [i] will actually play no role, so those earlier formulations would also serve my purposes.

(65) **Closeness** (Chomsky 1995:356): if β c-commands α and τ is the target of raising, then β is *closer* to τ than α unless either:
i. β is in the same minimal domain as τ, or
ii. β is in the same minimal domain as α

In other words, α and β are equidistant from γ if α and β are in the same minimal domain; this holds, for purposes of the MLC, whether γ is the target or α or β is. Now we can ask whether the DP in SpecPP is closer to Pred (the locus of the strong features) than P is. By (65), since SpecPP c-commands P and Pred is the target of raising, SpecPP is closer to Pred than P unless SpecPP is in the same minimal domain as either Pred or P. In other words, there must be some category γ whose minimal domain includes either both SpecPP and Pred or both SpecPP and P. SpecPP is in the minimal domain of P, but P itself is not, because of (64ii); P is not distinct from P, thus P is not in the domain of P (and is therefore not in the minimal domain). However, I know of no argument against striking or modifying that clause of (64ii); we could in general allow α to be in the domain of α, and even in the minimal domain. If we do this, then we have the result that for any head α and its specifier β, α and β are contained within the same minimal domain (namely MIN(δ(α))), and are thus equidistant from a potential target for raising. However, this does not mean that in general a head and a specifier should both be able to move, since in general they will have very different formal features, and not be both suitable for checking the same features.[12] The new definition of domain replacing (64ii) would be as in (66) below.

(66) The *domain* δ(CH) of CH is the set of categories included in MAX(α) that do not contain α or t

Various other adjustments to the definitions involved in determining closeness would be equally effective in achieving the desired result (e.g. c-command in (65) could be changed to m-command).

4.2. LF Movement

I have now suggested that the two derivations represented in (67a-b) are equally economical (repeated from (60-61) above).

(67) a. I [$_{VP}$ let [$_{PredP}$ the cat Pred [$_{PP}$ t_d out]]]
b. I [$_{VP}$ let [$_{PredP}$ out-Pred [$_{PP}$ the cat t_p]]]

---

[12] An exception might be possessive constructions, where a possessor DP_1 in $SpecDP_2$ could have features similar to those of the D_2; however, other factors are likely to prevent possessors in general from raising out of DPs, e.g. Case considerations (cf. Uriagereka 1988, Chomsky 1995). As will be seen below, there are other characteristics of the verb particle construction which make particle shift possible, characteristics lacking in other constructions.

The derivation occurs roughly as follows: the PP *the cat out* is constructed, then Merged with Pred to form PredP. Pred has a strong N feature, and attracts the closest element with a nominal feature which can enter into a checking relation with it. the DP *the cat* and the P *out* are equally close, so either can move. If the DP moves, it forms a specifier, SpecPredP. Next, the verb *let* is Merged with PredP, then the subject DP *I* (forming SpecVP), then the main clause Pred (or T) is Merged, and strong N there attracts the DP *I*. Then the structure passes on to Spell Out. So far, there is no problem with the account, given the analysis from §3 for the verb particle construction and the assumptions in §4.1 regarding closeness.

I have been simplifying several aspects of the model outlined in Chomsky 1995. First, Chomsky assumes that a transitive verb is composed of two shells (roughly as in Larson 1988 or Hale & Keyser 1993). Thus the actual structures are more like those in (68), now including the trace t_v of the verb as well as the trace t_s of the subject, and the light verb v (to which the verb *let* is attached) and its projection vP.

(68) a. I $[_{vP}$ t_s let-v $[_{VP}$ t_v $[_{PredP}$ the cat Pred $[_{PP}$ t_d out]]]]
b. I $[_{vP}$ t_s let-v $[_{VP}$ t_v $[_{PredP}$ out-Pred $[_{PP}$ the cat t_p]]]]

Another complication which becomes relevant here is that what is actually attracted to the strong N feature in the main and embedded Pred is not the lexical items, but only their formal features, FF(*I*), FF(*out*), and FF(*the*) (assuming that the formal features of the phrase are carried on its head, as in Gazdar et al. 1985). The lexical items are moved along by a sort of pied piping effect (see Chomsky 1995 for details). The argumentation above still stands; neither of the derivations in (68) is more economical than the other.

But this is not the end of the derivation. The Case feature of the DP *the cat* must be checked. This means that an additional, covert, step brings the two derivations to a stage somewhat like (69), where FF(*the*), the formal features of *the cat*, have raised to attach to the V-v complex, leaving the trace t_f under D.

(69) a. I $[_{vP}$ t_s FF(*the*)-let-v $[_{VP}$ t_v $[_{PredP}$ the-t_f cat Pred $[_{PP}$ t_d out]]]]
b. I $[_{vP}$ t_s FF(*the*)-let-v $[_{VP}$ t_v $[_{PredP}$ out-Pred $[_{PP}$ the-t_f cat t_p]]]]

Now it might be fair to suggest that the derivation in (25b) is longer than the derivation in (69a), since in (69a), FF(*the*) crosses only the trace head of the VP, while in (69b) it also crosses the Pred head of the small clause (to which the particle is adjoined). If it stops off at those intermediate points, then that derivation involves more chain links, and if it moves in one swoop, then that derivation involves a longer chain. Nevertheless, given the discussion in Chomsky 1995, there is no principle which specifically establishes the chain (FF(*the*), t_f) as longer in (69a) than in (69b) (in Chomsky 1995, based on Chomsky 1989, intermediate traces

are assumed to be irrelevant for computation). A more problematic fact is that if we compare the two derivations, at the point at which FF(*the*) is to move, it is closer to V in (69a) than in (69b) (because from SpecPredP, it c-commands SpecPP and the two are not in the same minimal domain, nor is SpecPredP in the same minimal domain as V). However, comparison is premature, as there is another movement involved in the derivation.

Recall from §3 that I argued that one thing that distinguishes the verb particle construction from other constructions involving selected small clauses is that the head of the small clause in the verb particle construction is l-selected by the verb. The pair have a special semantic relation and are frequently assigned an idiomatic interpretation. I suggested furthermore that they must combine at LF. This combination is driven by semantic considerations, so it will not do to simply move the formal features of the particle; its semantic features must move. I will assume that this means that the entire particle moves (i.e. it does not strand its formal features; phonetic features are of course irrelevant, and probably entirely absent, between Spell Out and LF). The LF representations now look something like those in (70).

(70) a. I [$_{vP}$ t_s FF(*the*)-out-let-v [$_{VP}$ t_v [$_{PredP}$ the-t_f cat Pred [$_{PP}$ t_d t_p]]]]
b. I [$_{vP}$ t_s FF(*the*)-out-let-v [$_{VP}$ t_v [$_{PredP}$ t_p-Pred [$_{PP}$ the-t_f cat t_p]]]]

I represent *out* as moving to *let*, leaving Pred behind; alternatively, it could be assumed that Pred is dragged along. Details aside, it is intuitively clear that when FF(*the*) makes a long move, in (70b), *out* makes a short one, and vice versa. In all, the number of links and the distance traversed is equivalent. In terms of the derivation, notice that the two elements which undergo LF movement, *out* and FF(*the*), both move to enter a relation with V. Thus their movement is subject to the Minimal Link Condition; the closest element which can enter into a checking relation with V does so. In the (a) derivation, the two elements which are in competition are in SpecPredP and in P. The Spell Out stage is repeated from (68a) above in (71a) below. SpecPredP is closer to V than P is, since SpecPredP and P are not in the same minimal domain, and nor are SpecPred and V. Thus, FF(*the*) moves to V, as in (71b) (it attaches to the V-v complex). Now, *out* still needs to incorporate with V, so it moves, as in (71c).

(71) a. I [$_{vP}$ t_s let-v [$_{VP}$ t_v [$_{PredP}$ the cat Pred [$_{PP}$ t_d out]]]]
b. I [$_{vP}$ t_s FF(*the*)-let-v [$_{VP}$ t_v [$_{PredP}$ the-t_f cat Pred [$_{PP}$ t_d out]]]]
c. I [$_{vP}$ t_s out-FF(*the*)-let-v [$_{VP}$ t_v [$_{PredP}$ the-t_f cat Pred [$_{PP}$ t_d t_p]]]]

The derivation from the (b) examples above is sketched in (72). The Spell Out stage is represented in (72a) (repeated from (68b)). Now the two elements with features to check against V are in Pred and SpecPP.

Pred is closer, so Pred moves first, giving (72b). The DP *the cat* still has Case features to check at this point, so FF(*the*) moves up as in (72c).

(72) a. I [$_{vP}$ t_s let-v [$_{VP}$ t_v [$_{PredP}$ out-Pred [$_{PP}$ the cat t_p]]]]
b. I [$_{vP}$ t_s out-let-v [$_{VP}$ t_v [$_{PredP}$ t_p-Pred [$_{PP}$ the cat t_p]]]]
c. I [$_{vP}$ t_s FF(*the*)-out-let-v [$_{VP}$ t_v [$_{PredP}$ t_p-Pred [$_{PP}$ the-t_f cat t_p]]]]

Again, many details are open to dispute (e.g. does *out* strand its formal features, is Pred pied-piped along with *out*, does *o u t* leave an intermediate trace, etc.), but on some fairly reasonable assumptions, there is no point at which principles of economy can evaluate one derivation over the other. Each involves the same number of steps. Once the initial choice is made, between (71a) and (72a), the derivations are determinate, but that choice is arbitrary.

I will assume, then, that the particle combines at LF with the verb, in every case where the particle is l-selected. This happens, as discussed in Svenonius 1994, 1996, just when the meaning of the whole involves a change of state in which both the manner and the result are lexically specified. If, in addition, the particle bears a nominal categorial feature, then particle shift is possible. If any of these conditions are not fulfilled, then particle shift will not be possible, and the structure in (71) will be the only one possible.

5. Conclusion

In this paper, I have demonstrated that true optionality exists at the syntactic level in the verb-particle construction in English, Norwegian, and Icelandic. Furthermore, I have shown that additional factors, such as sentential intonation, can have the effect that one structure is preferred over another; however, in the cases examined, the dispreferred variant was not considered ungrammatical. I have argued that this points to a system in which considerations of derivational economy do not choose between two alternative derivations; both are equally economical. The mild preference for one over the other must then be seen as stylistic and extragrammatical. Note that this suggests a model in which there is a certain separation between syntax and phonology. If the phonology compared all of the syntactically good candidates drawn from a given reference set, and selected the best among them, then we would expect the less good alternatives to be ungrammatical. Instead, it appears, two different syntactic outputs correspond to two different phonological candidate sets; the mild preference for one output over the other is simply too mild to be the result of direct comparison.

Formally, I have developed an account for the optionality of particle shift within a restrictive theory of economy, one which does not allow movements in general to be optional. I have attempted to do this without postulating arbitrary diacritics to force movement, but have relied instead on exploiting the constraint encoded in the Minimal Link

Condition. The "closest" element to a target must move, but the definition of closeness does not always uniquely determine a single element. Essentially the same sort of analysis has been developed by Kitahara 1995 for the optionality of Icelandic object shift, and by Ura 1995 for the Active/Inverse alternation in Bantu: economy does not choose between two equally economical derivations.

A crucial part of the analysis is that in the verb particle construction, the particle, through head movement, can check features ordinarily checked by a DP, specifically the EPP features. This aspect of the analysis is quite similar to the analysis of Alexiadou & Anagnostopoulou 1995, who argue that in Greek and Spanish VSO sentences, the verb checks the EPP features through head movement.

References

Alexiadou, Artemis, & Elena Anagnostopoulou. 1995: 'SVO and EPP in Null Subject Languages and Germanic,' MS. FAS, Berlin, and University of Tilburg/UCLA. Paper presented at CGSW at Rutgers in fall 1995 and at GLOW in Athens in spring 1996.

Bobaljik, Jonathan, & Dianne Jonas. 1996: 'Subject positions and the roles of TP.' *Linguistic Inquiry* 27.2:195-236.

Bolinger, Dwight. 1971: *The Phrasal Verb in English*. Harvard University Press, Cambridge, Ma.

Bowers, John. 1993: 'The syntax of predication.' *Linguistic Inquiry* 24.4:591-656.

Bresnan, Joan. 1990: 'Levels of representation in Locative Inversion: A comparison of English and Chichewa.' MS. Stanford University.

Chomsky, Noam. 1957: *Syntactic Structures*, Mouton, the Hague.

Chomsky, Noam. 1981: *Lectures on Government and Binding*. Foris, Dordrecht.

Chomsky, Noam. 1989: 'Some notes on economy of derivation and representation,' in *MIT Working Papers in Linguistics* 10, ed. by I. Laka and A. Mahajan, Cambridge, Ma. [Ch. 2 of Chomsky 1995]

Chomsky, Noam. 1992: 'A minimalist program for linguistic theory,' *MIT Occasional Papers in Linguistics* 1, Cambridge, Ma. [Ch. 3 of Chomsky 1995]

Chomsky, Noam. 1995: *The Minimalist Program*, MIT Press, Cambridge, Ma.

Diesing, Molly. 1992: *Indefinites*. MIT Press, Cambridge, Ma.

Diesing, Molly, & Eloise Jelinek. 1993: 'The syntax and semantics of object shift.' *Working Papers in Scandinavian Syntax* 51.

Dikken, Marcel den. 1995: *Particles: On the Syntax of Verb-Particle, Triadic, and Causative Constructions*. Oxford University Press, Oxford.

Emonds, Joseph. 1976: *A transformational approach to English syntax: Root, structure-preserving, and local transformations*. Academic Press, New York.

Fox, Danny. 1994: 'Economy and scope,' to appear in *Natural Language Semantics*.

Faarlund, Jan Terje. 1977: 'Transformational syntax in dialectology: Scandinavian word order varieties,' in *Papers from the Trondheim Syntax Symposium*, ed. by T. Fretheim and L. Hellan, 65-83. University of Trondheim.

Gazdar, Gerald, Ewan Klein, Geoffrey Pullum, and Ivan Sag. 1985: *Generalized Phrase Structure Grammar*. Harvard University Press, Cambridge, Ma.

Grimshaw, Jane. 1991: 'Extended projections.' MS. Brandeis University.

Hale, Kenneth, & Samuel Jay Keyser. 1993: 'On argument structure and the lexical expression of syntactic relations,' in *The view from Building 20: essays in linguistics in honor of Sylvain Bromberger*, ed. by K. Hale and S. J. Keyser, 53-110. MIT Press, Cambridge, Ma.

Heim, Irene. 1982: *The Semantics of Definite and Indefinite Noun Phrases*. PhD dissertation, University of Massachusetts, Amherst, Ma.

Hoekstra, Teun. 1988: 'Small clause results.' *Lingua* 74:101-139.

Holmberg, Anders. 1993: 'Two subject positions in IP in Mainland Scandinavian.' *Working Papers in Scandinavian Syntax* 52:29-41.

Hoop, Helen de. 1992: *Case Configuration and Noun Phrase Interpretation*. PhD dissertation, Rijksuniversiteit Groningen. Grodil, Groningen.

Jackendoff, Ray 1990: *Semantic Structures*. MIT Press, Cambridge, Ma.

Jonas, Dianne, & Jonathan Bobaljik. 1993: 'Specs for subjects: The role of TP in Icelandic,' in *MIT Working Papers in Linguistics* vol. 18, ed. by J. Bobaljik and C. Philips, 59-98.

Kamp, Hans. 1981: 'A theory of truth and semantic representation,' in *Formal Methods in the Study of Language*, ed. by J. Groenendijk, T. Janssen, and M. Stokhof, 277-321. Mathematical Tracts 135, Mathematisch Centrum, Amsterdam.

Kayne, Richard. 1985: 'Principles of particle constructions,' in *Grammatical Representation*, ed. by J. Guéron, H.-G. Obenauer, and J.-Y. Pollock. Foris, Dordrecht.

Kayne, Richard. 1994: *The Antisymmetry of Syntax*. MIT Press, Cambridge, Ma.

Kitahara, Hisatsugu. 1995: 'Target α: Deducing strict cyclicity from derivational economy.' *Linguistic Inquiry* 26.1:47-77.

Larson, Richard. 1988: 'On the double object construction.' *Linguistic Inquiry* 19.3:335-391.

Levin, Beth, and Tova Rapoport. 1988: 'Lexical subordination,' in *Proceedings of the Chicago Linguistic Society*, vol. 24. Chicago Linguistic Society, Chicago, Ill.

Milsark, Gary L. 1974: *Existential Sentences in English*. MIT PhD dissertation. Published 1979 by Garland, New York.
May, Robert. 1985: *Logical Form: Its Structure and Derivation.* MIT Press, Cambridge, Ma.
Pesetsky, David. 1995: *Zero syntax: Experiencers and Cascades*. MIT Press, Cambridge, Ma.
Reinhart, Tanya. 1993: 'Wh-in-situ in the framework of the minimalist program,' MS. OTS working papers, Utrecht.
Rögnvaldsson, Eiríkur. 1982: *Um orðaröð og færslur í íslensku.* Master's thesis, University of Iceland. Published 1990 as vol. 2 of *Málfræðirannsóknir*, Málvísindastofnum Háskóla Íslands, Reykjavík.
Sandøy, Helge. 1976: *Laust Samansette Verb i Vestnordisk: Ein samanliknande leddstillingsanalyse for islandsk, færøysk og romsdalsmål*. Magisteravhandling, Universitetet i Oslo.
Svenonius, Peter. 1992: 'Movement of P^0 in the English verb-particle construction,' in *Syntax at Santa Cruz*, vol 1, ed. by A. Black and J. McCloskey, 93-113. UCSC, Santa Cruz, Ca.
Svenonius, Peter. 1994: *Dependent Nexus: Subordinate Predication Structures in English and the Scandinavian Languages*. PhD dissertation, UCSC, Santa Cruz, Ca.
Svenonius, Peter. 1996: 'The verb-particle alternation in the Scandinavian languages,' MS. University of Tromsø; paper presented at CGSW at Rutgers in fall of 1995.
Taraldsen, Knut Tarald. 1983: *Parametric Variation in Phrase Structure: A Case Study*, PhD dissertation, University of Tromsø.
Taraldsen, Knut Tarald. 1991: 'A directionality parameter for subject-object linking,' in *Principles and Parameters in Comparative Grammar,* ed. by R. Freidin, 219-268. MIT Press, Cambridge, Ma.
Thráinsson, Höskuldur. 1979: *On Complementation in Icelandic*. PhD dissertation, Harvard University. Published 1979 by Garland Press, New York.
Ura, Hiroyuki. 1995: 'Optionality of "closeness" and active/inverse voice alternation in Bantu.' Paper presented at Workshop on Optionality at OTS, Utrecht.
Uriagereka, Juan. 1988: *On Government*. PhD dissertation, University of Connecticut, Storrs, Ct.
Vangsnes, Øystein Alexander. 1995: 'Referentiality and argument positions in Icelandic.' *Working Papers in Scandinavian Syntax* 55:89-109.
Zwicky, Arnold. 1986: 'The unaccented pronoun constraint in English.' *OSU WPL* 32:100-13.

Author's address: www.hum.uit.no/a/svenonius/