The Verb-Particle Alternation
in the Scandinavian Languages

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Draft of March 30, 1996[*]

0. Introduction

The Germanic languages employ a set of prepositional particles to indicate direction or location, and in an extended sense to indicate results or end-states of various kinds of events. These particles appear in a large number of idiomatic combinations with verbs, but despite the vast number of combinations, certain regularities of meaning are observed. I argue that this has to do with facts about the argument structure of verbs and prepositions, facts which can be characterized as constraints on possible lexical entries, or as limitations of the language of conceptual structure on which lexical entries are based.

The verb-particle construction shows characteristic syntactic properties, with interesting variation across the Scandinavian languages. I show how a small clause analysis, where the particle is the predicate of a small clause complement to the verb, can be employed to account for the various properties observed, including the surface order of the particle and what is traditionally taken to be the direct object of the verb, and incoporporation of the particle in certain passive constructions.

I argue that these constructions provide evidence for a more articulated structure for the small clause, following Kayne's analysis of participial constructions. I show several parallels between main clauses and these embedded clausal structures, including facts having to with the location of subjects, the EPP, and agreement.

1. The Argument Structure of Prepositions

It is well known that the argument structure of verbs exhibits certain regularities, for example if a verb has an Agent argument and a Patient or Theme, the Agent will be the external argument (in the sense of Williams 1981) and will appear in surface structure outside the verb phrase. The argument structure of prepositions is also constrained. Typically, prepositions denote spatial relations, which can be described

as holding between a Figure and a Ground (adopting the terms from Talmy 1985). The Figure, like the Theme of Gruber 1965, is the element which is in motion or located with respect to the Ground. Thus, in the examples below, the subject of each sentence is the Figure of the prepositional phrase, and the complement of the preposition is the Ground (taking *of* in (1c) to be an irrelevant, Case-motivated element).

(1)   a.   The cat is in the bag.
        b.   Tim has moved to Oakland.
        c.   The doctor is out of his office.
        d.   We found ourselves up a creek.
        e.   The bug lived on the windshield.

None of the typical spatial prepositions (e.g. *in, out, up, down, on, off, from, to, around*, etc.) can appear in the opposite configuration: the complement of the preposition is always interpreted as the Ground, and the resultant PP is always interpreted as the location, source, or goal of some Figure, whether it is the subject as in (2a), the event itself as in (2b), or some more abstract concept (e.g. a gaze), as in (2c).

(2)   a.   Ian is in D.C.
        b.   Terese studies in Copenhagen.
        c.   Marion gazed out the window.

In some cases, the Ground is not explicitly expressed, as in (3).

(3)   a.   The doctor is out.
        b.   The bug climbed up.
        c.   This hat doesn't stay on.

In each of these cases, the interpretation of the external argument of the prepositional phrase is clearly as the Figure; the Ground is contextually determined. In a few cases, the Ground is more abstract.

(4)   a.   Baker was out at third base.
        b.   The coffee pot is still on.
        c.   The kids are already up.

But even here, it is possible to construct a metaphorical interpretation which preserves the generalization that the external argument is the Figure, and there is some abstract unexpressed Ground. It is less easy to imagine a metaphorical interpretation by which the subject of the above sentences could be considered the Ground (something would have to be *out of Baker*, *on the coffee pot*, or *up the kids*).

      There are prepositions which appear to have another argument structure, for example instrumental *with* in *Stir the soup with the spoon*, or the possessive use of *with* in *the movie star with the entourage,* but these do not appear in the verb-particle construction. These senses of *with*, and certain other prepositions, might be thought of

as the experiencer verbs of the prepositional world. I will only be concerned here with what seems to be the most common type, those which have an external Figure and an internal Ground, as only they appear in the verb-particle construction.

Take it as given, then, that the mapping of the argument structure of these spatial prepositions onto their syntactic structure is fixed by some convention, perhaps a thematic hierarchy, analogous to that which determines that the Themes of verbs denoting movement map onto their sisters, while the Agent theta role is assigned to the external argument. Plausibly, the argument with the Figure role is always located in SpecPP, the Ground argument sister to P.

Hale & Keyser 1993 propose that certain intransitive verbs involve incorporation of an underlying direct object: hence the verb *dance* actually originates in a construction where a dummy light verb takes the nominal complement *dance* (cf. also Fillmore 1968, §6.3). Here the surface form of the verb reflects the content of the underlying object. Extending Hale & Keyser's proposal slightly, we might suggest that verbs like *eat*, which are clearly not denominal but which do have an intransitive use, optionally incorporate a dummy object. Thus the syntactic operation for these intransitive verbs is identical to that of verbs like *dance*, but the surface form reflects the underlying verb rather than the underlying object (cf. also Kayne 1993 on intransitive verbs being underlyingly transitive).

Given this, we might expect that similar incorporations occur with prepositions. If the expression *home* in *Marion is home* is derived from an underlying prepositional phrase with a dummy preposition taking the nominal complement *home*, then we have a parallel with Hale & Keyser's *dance*. Similarly, if there is an underlying dummy object to *out* in *The doctor is out*, then we have a prepositional parallel to *eat*. Occasionally, such incorporations can be seen overtly, as in the Norwegian *hjemover*, literally something like 'home-over,' in (5a), or *vestfra*, literally 'west-from,' in (5b).

(5)   a.   Han har dratt hjemover.   (Nor)
                    he has gone home-over
                    'He has headed home'

        b.   De   kom vestfra.
                    They came west-from
                    'They came from the west'

Similarly the constructions with r-pronouns (cf. van Riemsdijk 1978) *thereto*, *herewith*, etc.

2. The Resultative Nature of the Verb-Particle Construction

It has been observed (e.g. Bolinger 1971) that the verb-particle construction is essentially causative or resultative. Typically, and perhaps always, a verb-particle construction of the form SUBJECT VERB OBJECT PARTICLE means something like SUBJECT *cause* OBJECT *go* PARTICLE *by means of* VERB (cf. Ejerhed 1981). This can be seen in the following typical examples.

(6)   a.   The doorman threw the drunks out.
      b.   The firefighters hoisted the equipment up.
      c.   The police chased the demonstrators off.

In each case, the noun phrase immediately following the verb represents the Figure of the prepositional particle. In many cases, it is also possible to overtly express a Ground.

(7)   a.   The doorman threw the drunks out of the bar.
      b.   The firefighters hoisted the equipment up the side of the building.
      c.   The police chased the demonstrators off the steps.

When the Ground is not expressed, the particle freely alternates between the post-NP position shown in (6) and a pre-NP position as in (8). I refer to the pre-NP position as the SHIFTED position.

(8)   a.   The doorman threw out the drunks.
      b.   The firefighters hoisted up the equipment.
      c.   The police chased off the demonstrators.

Actually, there are unaccusative verb-particle combinations, like *curl up* or *fall out*, in which case the meaning is inchoative rather than resultative. In impersonal constructions particle shift can be observed; English is quite restrictive with respect to impersonal constructions, but they are productive in Norwegian.[1]

(9)   a.   Det   datt {ut} noen   jordbær   {ut}.   (Nor)
           there fell   out some strawberries out
           'Some strawberries fell out'
      b.   Det   ramlet {ned} tre   flasker {ned}.
           there tumbled down three bottles   down
           'Three bottles tumbled down'

As is well known, when an inchoative verb appears with an external argument, the interpretation is always causative. Thus the causative nature of the verb-particle construction noted by Bolinger is really due to something more general, but what is so far irreducible is the fact that the construction is inchoative, or involves the transition of an object from one location or state to another. I will use the general term RESULTATIVE to describe this aspect of the meaning of the construction.

There are non-resultative constructions in which a particle can be employed as a secondary predicate, as in (10), but here shift of the particle to the left is impossible.

(10) a.   We consider {*on} the deal {on}.
      b.   A supply train followed {*up} the climbers {up}.

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[1] Some speakers prefer the particle-NP order in these cases. This may be due to the fact that focused elements are often preferred at the right edge of a sentence, and the indefinite in an impersonal construction is typically focused. This may have more to do with the system of assigning sentential stress than with syntax proper.

Another condition on the alternation represented by (6) and (8) is that the secondary predicate must (typically) be a particle. Adjectival predicates, as in (11), do not usually undergo shift, even when the meaning is clearly resultative.

(11) a.   The doorman beat {*senseless} the drunks {senseless}.
      b.   The firefighters hoisted {*high} the equipment {high}.

There are some adjectival elements that shift, as shown in (12), at least for some speakers in some registers.

(12) a.   I tried to make {clear} the problem {clear}.
      b.   The activists set {free} the lab rats {free}.

This is possible on a strictly lexical basis; it is not that *clear* and *free* shift generally, but that the combinations *make clear* and *set free* allow shift. These combinations must be listed in the lexicon somehow. One way to achieve this is to invoke the notion of selection: the sense of *set* in (12b) selects *free* to head its complement. Pesetsky 1995 coins the term L-SELECTION for selection of a particular lexical item, typically a preposition by a verb. Clearly, something like l-selection must also be assumed for the many hundreds of idiomatic verb-particle combinations. We might even assume that l-selection is a necessary condition for shift to take place. I will argue that this explains various of the other restrictions on particle shift.

I am drawing a crucial distinction here between l-selection and other types of selection, Pesetsky's c-selection and s-selection. S-selection is selection for semantic content, c-selection selection for syntactic features, l-selection selection for a particular lexical item. Pesetsky and others have argued that c-selection does not exist, but clearly heads can at least place s-selectional restrictions on their subjects and complements (see Svenonius 1993 for discussion). What I am claiming is that although various small-clause taking verbs may place selectional restrictions on the predicates of their complements, they do not l-select those heads in particular; for example *consider* in (10a) does not l-select *on*.

Note that there are productive combinations, such as those of verbs of motion with directional particles (*roll/spin/slide/float* x *up/down/in/out* etc.) or those of a large class of verbs with affected objects with completive *up* (*tear/burn/drink/fry* x *up*). In these cases, the combinations will not be listed, but generated productively. That this occurs with prepositions but not with any adjectives is consistent with the fact that idiosyncratic l-selection of prepositions is far more common than l-selection of adjectives: l-selection, whether truly idiosyncratic or productively generated, is canonically by a verb for a preposition.

The next question is why the resultative nature of the verb-particle construction is relevant, i.e. why should there be thousands of cases of l-selection of a particular preposition by a verb where the combination has a resultative sense and no non-resultative cases (or at least very very few)?

I believe this to have to do with constraints on l-selection, perhaps in the form of constraints on possible lexical entries. In a sense, the element l-selected by the verb

is part of that verb's meaning. It may be, then, that certain constraints that hold over verb meanings include l-selected elements. For example, it is often held that a verb cannot have two arguments with the same theta-role (Fillmore 1968, cf. also Chomsky's 1981 Theta Criterion). Yet it has been suggested that prepositions assign theta-roles (cf. Parsons 1995). It seems likely that a verb which assigns a particular theta-role cannot also l-select a preposition which assigns that theta role; in other words, the Theta Criterion holds over not only the verb itself but the l-selectional part of its lexical entry. This seems plausible and might in fact fall out from a theory of theta roles.

Now, there are certainly verbs which specify a result state, e.g. *melt*, and so it is natural that a verb may l-select a particle which indicates a result state, e.g. *throw* selecting *out*. But there do not seem to be verbs which specify, say, the cognitive ascription of a particular property to some entity, for example a single verb meaning 'consider intelligent.' Therefore it is not clear that a verb should be able to l-select an element denoting a property cognitively ascribed to some entity, as would be necessary for *consider* to l-select *out*. Thus it may partly be a matter of what constitutes a well-formed lexical entry which leads to there being resultative verb-particle constructions and not other types. See Talmy 1985 for a discussion of what sorts of meaning may be part of a verb's lexical entry, in various languages. The idea here would be that those sorts of things, but not others, might also be l-selected.

In §3 I propose a structure for the verb-particle construction, and an analysis of the alternation in word order. There, I suggest that the particle's being l-selected is a necessary condition on its shift to the left. In §§4-6, I analyze the construction in the various Scandinavian languages, where there exist interesting variations on the alternation represented by (6) and (8).

3. The Structure of the Verb-Particle Construction

Given the analysis in §2 of the verb-particle construction as essentially a resultative construction in which the postverbal NP acquires the property denoted by the particle (the property of being up, or out, or whatever), it is plausible that the syntactic structure directly reflects this meaning in that the postverbal NP forms a small clause with the particle. In that case, the sentences in (7) above can be roughly diagrammed as in (13).

(13)   a.   The doorman threw [$_{SC}$the drunks [out of the bar]].
        b.   The firefighters hoisted [$_{SC}$the equipment [up the side of the building]].
        c.   The police chased [$_{SC}$the demonstrators [off the steps]].

This is the structure suggested by Bolinger 1971, more explicitly proposed in Kayne 1985 and Svenonius 1994; cf. den Dikken for a slightly different structure. Given the characterization in §1 of particles without complements as involving the same argument structure but with incorporated complements, the sentences in (6) would be roughly as in (14).

(14)   a.   The doorman threw [_SC_the drunks [out]].
        b.   The firefighters hoisted [_SC_the equipment [up]].
        c.   The police chased [_SC_the demonstrators [off]].

In each case, the small clause consists of a subject and a predicate (delineated here with its own set of brackets). The idea is that the throwing, hoisting, or chasing has in each case the result of bringing about a state of affairs in which an element is displaced: note that there are also cases like *The police waved the demonstrators away*, in which the verb *wave* does not typically appear with a simple NP direct object. A similar structure is posited for resultatives in general by Hoekstra 1988.

The discussion so far brings us to the question of the exact structure of a small clause. Following Hornstein & Lightfoot 1987 and Bowers 1993 I will assume that every small clause contains a functional head. This, coupled with the assumption that the Figure argument of the preposition is base-generated within the maximal projection of P, yields a more detailed underlying representation like that in (15), where the functional head is represented as F.

(15)   a.   The doorman threw [_FP_ F [_PP_ the drunks [out]]].
        b.   The firefighters hoisted [_FP_ F [_PP_ the equipment [up]]].
        c.   The police chased [_FP_ F [_PP_ the demonstrators [off]]].

This makes these structures parallel to other hypothesized small clause structures like those in (16), modulo the exact category of F.

(16)   a.   The fans considered [_FP_ F [_PP_the runner [out]]].
        b.   The firefighters wanted [_FP_ F [_AP_the equipment [repaired]]].
        c.   The police watched [_FP_ F [_VP_the spectators [move off]]].

Now, the EPP of Chomsky 1981 requires that every 'clause' have a 'subject.' In Chomsky 1995, this is formally ensured by the existence of a strong nominal feature in some functional head in the clause. The EPP can be seen to be operative in small clauses, as shown below: I represent the subject as occupying SpecFP.

(17)   a.   The fans considered [_FP_ it F [_AP_too cold to play baseball]].
        b.   The firefighters wanted [_FP_ it [F _AP_obvious that they needed the equipment]].
        c.   The police saw [_FP_ there F [_VP_be a riot]].

These constructions raise some questions. It has been suggested that at least weather *it* (as in (17a)) is needed independently of the EPP (i.e. it is a 'quasiargument,' in the sense of Rizzi 1990), and the nature of extraposition *it* (as in (17b)) is at least as unclear. Expletive *there*, as in (17c), appears to be conditioned by the presence of a verb (cf. Safir 1993). Plausibly, the verb requires a functional category not present in the other small clauses. Could it be, then, that the EPP is not generally operative in small clauses? This would mean that there are small clauses without subjects (making them difficult to identify as such). But constituents denoting states of affairs or propositions arguably always have subjects; at any rate, the complements of verbs

which typically take small clauses always have subjects, when those complements are interpreted as states of affairs or propositions: for example, although Cinque 1990 argues that adjectives like *likely* are 'unaccusative', constructions like that in (18a) below are impossible. And although passive participles as in (18b-c) appear in a range of constructions, when they are in small clause contexts their arguments must move to a subject position.

(18)   a. *   The cop considered [$_{FP}$ F [$_{AP}$ likely the explanation]].
       b. *   The firefighters wanted [$_{FP}$ F [$_{VP}$prepared the equipment]].
       c. *   The police saw [$_{FP}$ F [$_{VP}$broken into the house].

Note that Case theory is of no use in explaining this fact, as the NP *the house* in (18c) should get Case from the preposition. Further support for the claim that the EPP is generally operative in small clauses comes from the fact that in languages with passive intransitives, like Norwegian, a passive intransitive in a small clause context requires a dummy subject.

(19)   Vi så   det   danses.   (Nor)
             we saw there be.danced
             'We saw dancing going on'

If passivization removes the external argument from the argument structure of the verb, then intransitive passives should be truly zero-valent, i.e. they do not even have a 'quasiargument'; yet they require a subject when appearing in small clause contexts. If, on the other hand, intransitives have an incorporated internal argument à la Hale & Keyser, there is still no reason to expect the expletive to be necessary for Case purposes, so once again the presence of the expletive is forced by something else, which I will continue to call the EPP.

   I will assume, then, that the strong feature responsible for the EPP is present in the F head of a small clause, and requires that some nominal element appear in its checking domain prior to Spell Out. This means that in the examples in (15-16), the surface structural position of the small clause subject must be as in (20-21).

(20)   a.   The doorman threw [$_{FP}$ the drunks$_i$ F [$_{PP}$ t$_i$ [out]]].
       b.   The firefighters hoisted [$_{FP}$ the equipment$_i$ F [$_{PP}$ t$_i$ [up]]].
       c.   The police waved [$_{FP}$ the spectators$_i$ F [$_{PP}$ t$_i$ [away]]].

(21)   a.   The fans considered [$_{FP}$ the runner$_i$ F [$_{PP}$ t$_i$ [out]]].
       b.   The firefighters wanted [$_{FP}$ the equipment$_i$ F [$_{AP}$ t$_i$ [repaired]]].
       c.   The police watched [$_{FP}$ the spectators$_i$ F [$_{VP}$ t$_i$ [move away]]].

However, in the examples in (20), but not in those in (21), another option exists: the particle may precede the noun phrase. I assume that this occurs when the particle undergoes head movement to F, as in (22) (cf. Svenonius 1994).

(22) a.   The doorman threw [$_{FP}$ out$_i$ [$_{PP}$the drunks [t$_i$]]].
      b.   The firefighters hoisted [$_{FP}$ up$_i$ [$_{PP}$the equipment [t$_i$]]].
      c.   The police chased [$_{FP}$ off$_i$ [$_{PP}$the demonstrators [t$_i$]]].

If the structures in (22) are correct for the order verb-particle-noun phrase (henceforth Prt-NP), then the empirical observation is that movement of a particle to F in a causative-type construction (i.e. not in structures like those in (16/21)) obviates the need for a noun phrase to move to SpecFP; in other words, the movement of a particle to F in a resultative construction satisfies the EPP. The satisfaction of the EPP by movement of a predicative head rather than a noun phrase is independently argued for by Alexiadou & Anagnastopoulou 1995 for VSO word order in Greek.

There is an additional requirement: the particle must not have an overtly expressed Ground, i.e. it must not have a complement. This can be seen in (23) (cf. (13) above).[2]

(23) a.   The doorman threw out the drunks (*of the bar).
      b.   The firefighters hoisted up the equipment (*the side of the building).
      c.   The police chased off the demonstrators (*the steps).

Recall that it was suggested in §1 above that prepositions without overtly expressed Ground elements are the result of an abstract incorporation; they contain a nominal element. Possibly, this is what enables these elements, and not other predicative elements, to check the nominal features in F. Other predicative elements do not typically contain a nominal element, and cannot satisfy the EPP by head movement, even in resultative constructions; witness (24) (cf. (11) above; recall that there are idiomatic exceptions, as in (12) above; the adjectives there may be lexically specified as nominal).

(24) a.   The doorman beat {*senseless} the drunks {senseless}.
      b.   The firefighters hoisted {*high} the equipment {high}.
      c.   The cook burnt {*black} the roast {black}.

However, although having nominal features may be a necessary condition for leftward shift of a predicative element, it is not a sufficient one. There are nominal predicates which do not shift (recall from above that *dance* has an incorporated nominal element, following Hale & Keyser 1993).

(25) a.   The club elected {*president} John {president}.
      b.   The bandits made {*dance} the cowboy {dance}.

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[2] Of course, there are examples like *The doorman threw out the drunks from the bar*, but I must assume that these involve an adjunct *from the bar*, not a complement of the particle. As den Dikken 1995 points out, combinations such as *out from the bar* can behave as constitutents (*Out from the bar he chased the drunks*). I must then conclude that *The doorman threw the drunks out from the bar* is structurally ambiguous, with *from the bar* either a complement of *out* or an adjunct. When it is an adjunct, *out* can shift, when it is a complement of *out*, *out* cannot shift.

These examples will be ruled out by the condition suggested in §2, that the predicate be l-selected by the verb. *Elect* does not l-select *president* (though perhaps it could, in principle, and therefore might, in some language), therefore *president* cannot shift; similarly for *make* and *dance*. There are s-selectional restrictions here, but not l-selection.

Why should l-selection matter? I suggested in Svenonius 1994 that it has to with l-selection being essentially a local relation. If the l-selected element must move at LF to the head of the complement of the element l-selecting it, then an l-selected element must be in F by LF. Plausibly, an s-selected element does not; the functional structure is part of the s-selected element, so the relation is already sufficiently local at s-structure. Assume, too, that by LF a noun phrase must appear in SpecFP in order to create a predication configuration. Now, if the head of the predicate is not l-selected, then principles of economy prefer a derivation in which the noun phrase moves overtly and the head of the predicate not at all, over one in which the head of the predicate moves overtly, satisfying the EPP, and the noun phrase moves covertly. Contrast this with a construction in with either the noun phrase moves overtly, and the l-selected head covertly, or vice-versa. Plausibly, economy cannot decide between these two (for more detailed discussion see Svenonius 1995b).

A final observation about word order in the verb particle construction which will shortly become relevant is the fact that unstressed pronouns must precede the particle, as in (26).

(26) a. We threw {it} out {*it}.
      b. They locked {him} up {*him}.

Various possibilities exist as to why this pattern might obtain, but in accordance with the general mechanisms being employed here, I will assume that the pattern in (26) indicates that pronouns must move to SpecFP; this can be enforced if unstressed pronouns, but not other nominal elements, have strong agreement features which must be checked (cf. Vangsnes 1995, for whom Agr is associated with person features, which are only borne by pronouns). This suggests that F may have something to do with agreement, a possibility I will explore below.

4. Cross-Scandinavian Variation

4.1. Norwegian and Icelandic

Norwegian and Icelandic are essentially like English with respect to the word order possibilities in the verb-particle construction. Thus the particle can precede or follow the noun phrase in constructions like those in (27).[3]

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[3] Many thanks to Jóhanna Barðdal, Þorbjörg Hróarsdóttir, and Halldór Sigurðsson for providing and discussing the Icelandic data. My informants for Norwegian are too numerous to name, but I would like to especially thank Gry Olsen, Tarald Taraldsen, and Marit Richardsen Westergaard.

(27) a.   Vi   kastet   {ut} hunden   {ut}.   (Nor)

        b.   Við hentum {út} hundinum {út}.   (Ice)
              we threw   out the.dog   out
              'We threw {out} the dog {out}'

        c.   Mannen har   drukket {opp} vinen   {opp}.   (Nor)

        d.   Maðurinn hefur drukkið {upp} vínið   {upp}.   (Ice)
              the.man   has   drunk   up   the.wine up
              'The man has drunk {up} the wine {up}'

The pattern above is slightly idealized. Norwegian exhibits dialectal variation, with at least some dialects preferring Prt-NP order (I take this up below). Many Icelandic speakers show a preference for NP-Prt order when the noun phrase is definite (also taken up below). However, for most Norwegian dialects and for non-definite noun phrases in Icelandic, there is free variation as indicated, and even for definite noun phrases in Icelandic as in (27b, d), the Prt-NP order is not ungrammatical but simply dispreferred. Norwegian and Icelandic also pattern with English when the particle has a complement, as in (28), which makes particle shift impossible.

(28) a.   Vi   kastet   {*ut} hunden   {ut} av huset.   (Nor)

        b.   Við hentum {*út} hundinum {út} úr húsinu.   (Ice)
              we threw   out the.dog   out of the.house
              'We threw the dog out of the house'

Also as in English, unstressed pronouns must precede the particle, as illustrated in (29) below.

(29) a.   Vi   kastet   {*ut} den   {ut}.   (Nor)

        b.   Við hentum {*út} honum {út}.   (Ice)
               we threw   out it   out
              'We threw it out'

Similarly, particle shift is typically impossible when the embedded predicate in a causative construction is not a particle, or when the construction is not causative; in these cases, the alternation does not occur and the noun phrase must precede the small clause predicate.

(30) a.   Kokken brennte {*svart} kyllingen {svart}.   (Nor)
              the.cook burned   black the.chicken black
              'The cook burned the chicken black'

        b.   Musikerne   anså   {*over} konserten {over}.   (Nor)
              the.musicians considered over   the.concert over
              'The musicians considered the concert over'

As in English, certain idiosyncratic combinations do allow shift with adjectives (cf. Åfarli 1985, whence (31b)). As is expected if these combinations are lexically listed, they do not correspond exactly to the possible combinations in English (cf. (12) above).[4]

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[4] Adjectives which shift typically appear in non-agreeing forms, as seen in (31a), where *fri* and *løs* are bare forms, identical to the masculine singular form (instead of the expected plural *frie* and neuter

(31) a. Aktivistene slapp {fri} prøvekaninene {fri}.   (Nor)
          the.activists let   free the.test.rabbits   free
          'The activists released the guinea pigs'

     b. Vi heiste {løs} vraket   {løs}.
          we hoisted loose the.wreck loose
          'We hoisted the car free'

The analysis sketched in §3 for English can therefore be imported directly into Norwegian and Icelandic. Danish and Swedish, however, require some different assumptions, as first explored in Taraldsen 1983, 1991.[5]

4.2. Danish and Subject Positions

In Danish, particle shift does not occur. The noun phrase must precede the particle in all cases (examples adapted from Herslund 1993:56).[6]

(32) a. Boris skruede {*ned} musikken {ned}.   (Dan)
          Boris screwed   down the.music down
          'Boris turned the music down'

     b. Boris flyttet {*rundt} møblene   {rundt}.
          Boris moved   around the.furniture around
          'Boris moved the furniture around'

     c. Boris skrev {*under} kontrakten {under}.
          Boris wrote   under the.contract under
          'Boris signed the contract'

Given my analysis, this indicates that the EPP in Danish is satisfied in the small clause by NP movement to SpecFP, but not by P movement to F. This in turn suggests one of two things: either the particle in Danish does not bear the nominal feature necessary to satisfy the EPP in these constructions, or the EPP in these constructions in Danish involves some feature other than the N feature hypothesized for English and Norwegian and Icelandic, a feature which particles do not bear. There does not seem to be any reason to believe that particles in Danish are any different from particles in the other languages. There is, on the other hand, independent evidence that the EPP is different in Danish. To see this, it is necessary to look at clauses in which the subject is not in the main clause-initial 'topic' position. As noted by Platzack 1986a, b and Holmberg 1986, adverbs may sometimes intervene between

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singular *løst*).

[5] One problem is the existence in Norwegian and Icelandic of cases in which what is apparently a phrasal element undergoes shift, as in [i-ii]. These are most common and productive with reflexive pronouns (as in the examples here) and certain expressions involving bare nouns, but more complex cases are also attested.

  [i] Svo henti hann {frá   sér} hnífunum {frá   sér}.   (Ice)
        so   threw he   from RFX the.knife   from RFX
        'Then he threw the knife down'

  [ii] Da   kledde han {på seg} genseren   {på seg}.   (Nor)
        then clad   he   on RFX the.sweater on RFX
        'Then he put the sweater on'

[6] Special thanks to Gitte Petersen and Sten Vikner for providing and discussing the Danish data.

the C position and a subject in Swedish and Norwegian sentences like those in (33-34) below. A subject in the low position is typically contrastively focused (examples based on Holmberg 1993).

(33) a. Har {någon student} möjligen {någon student} läst boken?   (Swe)

    b. Har {noen student} muligens {noen student} lest boken?   (Nor)
has any student possibly any student read the.book
'Has any student possibly read the book?'

(34) a. Det är märkligt att {Johan} inte {Johan} gillar prinsesstårta.   (Swe)

    b. Det er merkelig at {Jon} ikke {Jon} liker prinsessekake.   (Nor)
it is odd that Johan not Johan likes princess.cake
'It is odd that John doesn't like princess cake'

Similar data can be constructed for Icelandic; cf. Jonas & Bobaljik 1993. Here the lower position (as in (35b)) is not necessarily focused, but must be quantificational, as discussed in Vangsnes 1995.

(35) a. Í gær hafa einhverjir stúdentar sennilega lesið bókina.   (Ice)
yesterday have some students probably read the.book

    b. Í gær hafa sennilega einhverjir stúdentar lesið bókina.
yesterday have probably some students read the.book
'Yesterday some students probably read the book'

Holmberg 1993 points out that Danish is different; in Danish, adverbials may not precede the subject in these cases.

(36) a. Har {nogen student} muligvis {*nogen student} læst bogen?   (Dan)
has any student possibly any student read the.book
'Has any student possibly read the book?'

    b. Det er mærkelig at {Johan} ikke {*Johan} kan lide Gammel Dansk.
it is odd that Johan not Johan can suffer Old Danish
'It is odd that Johan doesn't like Old Danish (bitters)'

Following the spirit of Jonas & Bobalijk's 1993 analysis of Icelandic, Holmberg 1993 and Vangsnes 1995 take the two alternative word orders in Swedish, Norwegian, and Icelandic to reflect two different subject positions, representing the specifiers of two different functional heads, viz. Agr and T. If the adverbials in the above examples are adjoined to TP, then the two different word orders reflect the possibility of the subject either stopping in SpecTP or continuing on to SpecAgrP. If this is the correct analysis, then the empirical observation is that in Danish, the subject may not stop in SpecTP, but must raise to SpecAgrP. A plausible analysis of this is that Danish has an additional strong feature in Agr, absent from the other languages.

Now recall the observation for the Danish verb-particle construction: not that the subject clearly moved to a higher position, but that the EPP was only satisfied by the movement of a noun phrase, not by the movement of a particle. The question then is whether these two properties of Danish might be one and the same. One very straightforward possibility, basically following suggestions in Chomsky 1995, would be that there are two different kinds of nominal features which might give rise to EPP

effects: say that there is a general nominal feature, N, which can be checked by any nominal element, and another nominal feature, D, associated with something like referentiality, checked only by a noun phrase (a DP).

Now, if D is associated with Agr, and T is associated with N, then the subject position facts suggest that N in T is strong in Norwegian, Swedish, and Icelandic, but D in Agr is not strong.[7] In Danish, D in Agr is strong (we can assume but not demonstrate that N is also strong in T). This forces the Danish subject to a higher position. If the small clause dominating the particle includes both Agr and T, then this will also mean that when noun phrases raise in Norwegian, Swedish, and Icelandic, they only raise to SpecTP, whereas in Danish they raise all the way to SpecAgrP. The pattern is diagrammed in (37): in (37a-b), the two possibilities for English, Norwegian, and Icelandic are given; either the NP is in SpecTP, as in (37a), or the particle is in T, as in (37b). Danish has the NP in SpecAgrP, as the only option, as in (37c).

(37)   a.   kaste $[_{AgrP}$ Agr^0 $[_{TP}$ hunden$_i$ T^0 $[_{PP}$ t$_i$ ut]]]
         b.   kaste $[_{AgrP}$ Agr^0 $[_{TP}$ ut$_i$-T^0 $[_{PP}$ hunden t$_i$]]]
         c.   smide $[_{AgrP}$ hunden$_i$ Agr^0 $[_{TP}$ t$_i$' T^0 $[_{PP}$ t$_i$ ud]]]
              throw   the.dog   the.dog out   the.dog out

Thus the NP is in a different landing site in Danish. If for some reason there are no adverbs that can adjoin to the TP that dominates a particle, then we will never see evidence for this difference in the location of the Figure. With respect to particle shift, however, there will be a visible difference. The N feature, by hypothesis, is checked by anything nominal, including a particle with an incorporated Ground (as in (37b)). The D feature, on the other hand, is only checked by a DP. Therefore, particle shift will be an option in Norwegian, Swedish, and Icelandic, but not in Danish.[8]

Consistently with this analysis, unstressed pronouns in Swedish, Norwegian, and Icelandic must appear in the higher subject position in a verbal clause, suggesting

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[7] Something additional will have to be said about the movement of non-contrastively focused subjects to SpecAgrP in Norwegian and Swedish clauses, and of non-quantificational subjects to SpecAgrP in Icelandic; perhaps such subjects have some features which must be checked by Agr (cf. Adger's 1994 connection between Agr and definiteness), or perhaps there is ordinarily a strong feature in Agr which can be checked 'contextually' or called off in certain kinds of informational contexts.

[8] Henry 1995 accounts for some dialectal variation in English by suggesting that Belfast English allows SpecTP as a surface site for the subject. This supports my analysis in that it suggests that the position of the subject is subject to dialectal variation; however, it is also problematic in that if Standard English requires the subject to appear in SpecAgrP, then Standard English ought to be more like Danish. Adverbials between C and the subject are not great in English, cf.

    i.   Has {?possibly} any student {possibly} read the book?
    ii.   It is strange that {?apparently} John {apparently} likes Old Danish.

So perhaps there is an N feature in Agr in Standard English, satisfied by particles in small clauses, but drawing subjects higher than SpecTP in verbal clauses; this would make it unlike Danish, with a D feature in Agr, and unlike Norwegian and Icelandic, with an N feature in T.

that they have strong features which must be checked in the higher functional head, corresponding to the Agr head in the verb-particle construction.

The analysis just sketched requires that particles be dominated not only by Agr but also by Tense, which is startling in light of the fact that particles never show any agreement or tense inflection; in fact, those few adjectives which undergo shift do not show agreement, when shifted, even in languages like Norwegian and Swedish where they otherwise would, in an ordinary small clause (cf. (31) above). But if Agr is associated with predication, like Bowers' Pr or the Pred head proposed in Svenonius 1994, then it is not surprising that it should appear in a small clause. The failure of agreement in adjectival cases might simply indicate that the noun phrase never raises to SpecAgrP, its movement there being obviated by the movement of the l-selected adjective. And as for T, it might really be a sort of aspectual head, since the verb-particle construction certainly has a consistent aspectual character (cf. §2). Furthermore, there does seem to be some sense of an embedded event in these constructions, something that might imply a functional head associated with tense or aspect. Consider that the example in (38a) is ambiguous, depending on whether *again* scopes over the verb or just the particle. In the latter case, the sentence does not entail that Runar ever let us in before, just that we were in before. In contrast, (38b) entails that Runar has invited us before.

(38)   a.   Runar let us in again.
        b.   Runar invited us again.

However, an account could also be constructed using only the single head F in the small clause; it would simply require that that head have a D feature in Danish, but an N feature in Norwegian et al. As long as strong D is in Agr in a main clause, and strong N in T, the subject position facts will also come out right. The only drawback is that it requires us to assume a functional head F for small clauses which is not quite like Agr (because its strong feature is N in Norwegian) and not quite like T (because its strong feature is D in Danish). Another possibility is that Norwegian small clauses are TPs, Danish small clauses AgrPs. I will not resolve these questions here, as I will present arguments in §5 that there is in fact more than one functional head in the small clause. At any rate, it appears that we do have independent motivation for an EPP feature in Danish which is lacking in the other languages.

4.3. Faroese

Faroese exhibits more variation than Danish, both in terms of individual speakers' preferences and in terms of lexical combinations (there are many combinations which only allow the Prt-NP order), but the tendency is clearly the same as in Danish (cf. Sandøy 1976, Lockwood 1977). The examples below are taken from Sandøy 1976.[9]

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[9] Many thanks to Jógvan i Lon Jacobsen for providing and discussing the original Faroese data in this paper. Sandøy gives judgments from three different informants, and the judgments I report for his examples are grokked from the different responses.

(39) a. Teir vinda {?opp} reint flagg {opp}.   (Far)
          they wrang up   clean flag   up
          'They hoisted a white sail'

      b. Eg gloymdi at siga {??fram} hesi dømini {fram}.
          I forgot   to say   forth these examples forth
          'I forgot to mention these examples'

      c. Hann mátti skjóta {*frá} bátin {frá}.
          he   must move   from the.boat from
          'He had to move the boat around'

Can the analysis just proposed for Danish be carried over to Faroese? The answer hinges on the placement of the subject. Faroese yields mixed results on this point. It is possible to find examples like (33) and (35) with an adverbial preceding a quantified subject following an inverted verb.

(40) a. Hava {nakrir studentar} kanska {nakrir studentar} lisið bókina? (Far)
          have any students   maybe   any student   read the.book
          'Have any students read the book, by chance?'

      b. Í dag hava {nakrir studentar} kanska {nakrir studentar} lisið bókina.
          today have some students   maybe   some students   read the.book
          'Today perhaps some students have read the book'

However, the distribution of the adverbial corresponding to *kanska* (historically from the verbs *kann+skje*, 'can happen', cf. *maybe*) is unique in the other Scandinavian languages (cf. Platzack 1986a, b for Swedish, Thráinsson 1986 on Icelandic), having greater freedom of placement than other adverbs. With an adverb like *møguliga* 'possibly', corresponding to the adverbs in (33) and (35), the sentence with a low subject is degraded.

(41) a. Hava {nakrir studentar} møguliga {?nakrir studentar} lisið bókina? (Far)
          have any students   possibly   any student   read the.book
          'Have any students possibly read the book?'

      b. Í dag hava {nakrir studentar} møguliga {?nakrir studentar} lisið bókina.
          today have some students   possibly   some students   read the.book
          'Today some students have possibly read the book'

In examples based on (34), Faroese patterns even more clearly with Danish.

(42) Tað er undarligt at {Jógvan} ikki {*Jógvan} dámar Gammel dansk.   (Far)
      it is odd   that Jógvan not   Jógvan likes Old   Danish
      'It is odd that John doesn't like Old Danish (bitters)'

The Faroese data is thus somewhat inconclusive, but I will assume in what follows that it patterns with Danish in not allowing the lower subject position, pending further investigation with a wider range of adverbials.

4.4. Icelandic and Subject Positions

Interesting support for the analysis sketched above is revealed upon a closer examination of the conditions on the different subject positions in Icelandic. In Icelandic, as Bobaljik & Jonas 1994 and Vangsnes 1995 show, definites (including

noun phrases with demonstrative determiners and those with the suffixed definite article) are preferred in the higher subject position, which we have assumed is SpecAgrP.

(43) a. Þá   kölluðu fyllibuturnar skyndilega upp nafnið   mitt.   (Ice)
          then called   the.drunks   suddenly   up the.name my
          'Then the drunks suddenly called out my name'

      b. ? Þá   kölluðu skyndilega fyllibuturnar upp nafnið   mitt.
          then called   suddenly   the.drunks   up the.name my
          'Then the drunks suddenly called out my name'

Vangsnes 1995 also shows that non-contrastive indefinites also appear in SpecAgrP, but contrastive indefinites may appear in SpecTP. Quantified noun phrases, like contrastive indefinites, may appear either high or low, that is they may appear in SpecTP. This is demonstrated in (44).

(44) a. Þá   kölluðu nokkrar fyllibutar skyndilega upp nafnið   mitt.   (Ice)
          then called   some   drunks   suddenly   up the.name my
          'Then some drunks suddenly called out my name'

      b. Þá   kölluðu skyndilega nokkrar fyllibutar upp nafnið   mitt.
          then called   suddenly   some   drunks   up the.name my
          'Then some drunks suddenly called out my name'

This is quite similar to the pattern observed in Icelandic with respect to the location of the noun phrase and the particle. Although I have classified Icelandic with Norwegian and English as allowing free variation between the NP-Prt order and the Prt-NP order, there is a preference, for most speakers, according to the type of noun phrase, as noted in §4.1. Definites are preferred in the high position, while quantified noun phrases may appear either high or low.

(45) a. Ég ætla að henda {fyllibutunum} út {?fyllibutunum}.   (Ice)
          I   plan to throw   the.drunks   out   the.drunks
          'I'm going to throw the drunks out'

      b. Ég ætla að henda {nokkrum fyllibutum} út {nokkrum fyllibutum}.
          I   plan to throw   some   drunks   out some   drunks
          'I'm going to throw some drunks out'

The correlation is not airtight, as the preferences regarding subject position vary considerably with the adverbial chosen, in some cases leading to clear ungrammaticality when a definite subject is low (cf. Bobaljik & Jonas 1995, Vangsnes 1995), whereas the tendency in the verb-particle construction is weaker. Furthermore, the status of (bare) indefinites in the verb-particle construction is not clearly parallel to the situation in the clause reported by Vangsnes, but the similarity of (43-44) to (45) is certainly suggestive. If there is something about definiteness in Icelandic that links it to Agr, e.g. there is a definite feature which must be checked in Agr, then it may be weaker in the small clause than in a verbal clause, but the fact that definites and quantified noun phrases split in the same way in the two environments

suggests a connection, captured here by identifying the landing site of the 'high' NP in the particle construction with the 'high' subject position.

4.5. Swedish and Aspectual Features

Swedish can be described as having obligatory particle-shift: only the order particle-NP is possible (exx. from Holmberg 1986).[10]

(46)　a.　Johan skrev {upp} numret　{*upp}.　　　　　　　　　(Swe)
　　　　　　Johan wrote　up　the.number up
　　　　　　'Johan wrote down the number'

　　　b.　Han lämnade inte {in} uppgiften　　{*in}.
　　　　　　he　handed　not　in　the.assignment in
　　　　　　'He didn't hand in the assignment'

　　　c.　Nyström spelade helt　enkelt {ut} honom {*ut}.
　　　　　　Nyström played　quite simply out him　　out
　　　　　　'Nyström quite simply outplayed him'

Given the framework assumed here, this suggests that the verb-particle construction in Swedish involves another strong feature, a feature which is satisfied by particle movement and not by NP movement. If particles can satisfy the EPP in Swedish, as claimed above for English, Norwegian, and Icelandic, then NP movement will be obviated by particle movement, and we expect the Figure noun phrase to remain low (by principles of economy of derivation, cf. Chomsky 1991). The questions then are what that feature might be, and whether there is independent evidence that Swedish has such a strong feature which is lacking in the other languages. One possible piece of evidence comes from infinitival constructions. As pointed out for example in Johnson & Vikner 1994, the infinitival marker in Swedish appears to be higher up than the corresponding element in Norwegian and Danish ((47) adapted from Johnson & Vikner 1994:78).[11]

(47)　a.　Maria lovade　att inte　　läsa　boken.　　　　　　　　(Swe)

　　　b.　Marie lovede　　　ikke　at læse bogen.　　　　　　　　(Dan)

　　　c.　Marie lovet　{å} ikke {å} lese　boken.　　　　　　　　(Nor)
　　　　　　Marie promised to not　to　read the.book
　　　　　　'Maria promised {to} not {to} read the book'

Possibly, *att* moves from T into Agr obligatorily in Swedish because of the same strong feature that forces particle movement.[12] *At* does not move in Danish, and *å* need not in Norwegian (nor *to* in English), though why movement appears to be possible there is another question. The obvious question at this point is, what feature could Swedish have in Agr (and F) that attracts the infinitival marker and particles but

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[10] Thanks to Eva Ejerhed, Anders Holmberg, and Anna-Lena Wiklund for producing and discussing the original Swedish data here.

[11] *Að* in Icelandic is apparently located in C, following Johnson & Vikner and others.

[12] Note that this would not necessarily commit us to assuming that small clauses contain Agr in Swedish, since on the one-head account there would be a head F in the small clause which can have certain features of Agr or of T.

not other elements? There is one thing that appears to link the two, in a roundabout way, which is aspect; the particles typically denote end-states in a resultative construction, and the infinitive typically denotes an unrealized state of affairs, both of which have an aspectual character. But what these have to do with Agr is another question. Thus, though the pattern in (47) is suggestive, at this point I leave it as a stipulation that Swedish has a strong feature in F, presumably of an aspectual nature, which attracts the particle. Note that if we assume that there are two functional heads above the particle, Agr and T, the strong aspectual feature might be located in either one, in principle. If the strong feature is in T, then the particle will move there and check it, cancelling EPP effects. If the strong feature is in Agr, then the particle will pass through T on the way, checking the strong N feature in passing.

5. Agreement and Incorporation

The analysis outlined above accounts for the bulk of the data regardinging the verb-particle construction in English and the various Scandinavian languages. However, there are some loose ends, particularly with respect to Swedish and some dialects of Norwegian. One of these loose ends has to do with the possibility of overt incorporation of the particle into the verb, as in the examples in (48).

(48)   a.   The rioters {turned over/overturned} the police car.

        b.   Vi {tok fra / fratok}   han alt ansvar.   (Nor)
              we took from from.took him all responsibility
              'We absolved him of all responsibility'

        c.   Jens {gav op/opgav} sine studier.   (Dan)
              Jens gave up up.gave his studies
              'Jens abandoned his studies'

Such examples can be found in each of the languages in question, but are lexically quite restricted. In the examples above, the alternatives are basically synonymous, but more frequently, the incorporated form has an idiomatic, more abstract meaning, while the analytic form has a more compositional, predictable meaning (compare for example *uplift* with *lift up*). The incorporated combinations can therefore be assumed to be individually lexically listed, for each language (as argued by Herslund 1984, 1993 for Danish, whence ex. (48c)).

5.1. Productive Incorporation

However, in some cases there is productive incorporation. This is true for example in the analytic passive in Swedish, where incorporation is (for most speakers) obligatory, as indicated in (49). These examples do not have lexicalized active counterparts of the sort shown in (48).

(49)   a.   Mjölken blev aldrig {inställd/*ställd in}   (Swe)
              the.milk was never   in.put   put in
              'The milk never got put away'

b.   Skräpet måste bli {utkastat/*kastat ut}.
          the.scrap must be out.thrown thrown out
          'The scrap had to be thrown out'

In English, Danish, and Icelandic, on the other hand, incorporation of this sort is impossible.

(50) a.   The dog   was thrown out.   * The dog   was   outthrown.
      b.   Hunden   blev smedet ud.   * Hunden   blev udsmedet.   (Dan)
      c.   Hundinum var hent   út.   * Hundinum var úthent.   (Ice)
            the.dog   was thrown out   the.dog   was out.thrown
            'The dog was thrown out'

Norwegian shows considerable variation on this point. Some dialects pattern essentially with Swedish, requiring or at least strongly preferring incorporation; an example is given in (51a) from the Leikanger dialect of Sogn (in western Norway). Other dialects strongly disprefer incorporation, for example as in (51b) from the Nordreisa dialect of Troms (in northern Norway).

(51) a. ?? Trea   vart hogne   ned.   Trea   vart nedhogne.   (WNor)
      b.   Trærne ble   hogd   ned.   ??Trærne ble   nedhogd.   (NNor)
            the.trees were chopped down   the.trees were down.chopped
            'The trees were chopped down'

For other dialects, there is substantial speaker and lexical variation. This is also the case with Faroese. Examples like those in (52) ((52a-b) from Sandøy 1976) are in essentially free variation (Sandøy registers a preference by one of three speakers for the incorporated form in (52b)).

(52) a.   Har lá tá   fiskurin, bert magin   var {úrskorin/skorin úr}.   (Far)
            Here lay then the.fish, only the.stomach was out.cut cut   out
            'There the fish lay, only the stomach cut out'
      b.   Snøríð   bleiv serliga   væl {uppgjørt/gjørt upp} leygarkvøldið.
            the.grinder was particularly well up.done done up Saturday.night
            'The grinder was particularly well cleaned Saturday night'

As Sandøy 1976 notes, in Faroese and in Norwegian dialects with optional incorporation, a stative sense favors the incorporated form, while an event-oriented reading favors the non-incorporated form.

There appears to be no correlation between incorporation and the surface location of the particle in active sentences. Non-incorporating languages include Danish, where the particle is always low, and English and Icelandic and several Norwegian dialects, where the position of the particle varies. Incorporating languages include Swedish, where the particle is always high, several Norwegian dialects, where there is particle alternation, and Faroese, where the particle tends strongly to be low (cf. above).

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5.2. Participle Agreement

Thus, particle placement is no indication of the possibility of incorporation. However, the distribution of incorporation correlates closely with another grammatical phenomenon: the distribution of overt morphological agreement on the participle. The correlation is not perfect, but is very suggestive. First, consider the languages in which there is no agreement on participles: simplifying the Norwegian situation somewhat, we can list these as English, Northern Norwegian, Eastern Norwegian, and Danish.[13]

(53) a. The dog is tied.   The dogs are tied.
      b. Bikkja e bunde.   Bikkjan e bunde.   (NNor)
      c. Hunden er bundet.   Hundene er bundet.   (ENor)
      d. Hunden er bundet.   Hundene er bundet.   (Dan)
          the.dog is tied   *the.dogs are tied*
          'The dog is tied'   'The dogs are tied'

As already noted, English and Danish never allow incorporation. Northern Norwegian and Eastern Norwegian are more variable, but incorporation is never obligatory there as it is in Swedish, and is typically dispreferred (and often impossible). At the risk of oversimplification, I will treat Northern and Eastern Norwegian as non-incorporating.

The remaining languages do have agreement on participles (passive participles and unaccusative perfect participles with *be*), again oversimplifying the Norwegian situation by assuming a single Western Norwegian standard (see Sandøy 1988 for a detailed study of the distribution of agreeing participles in Norwegian dialects).[14]

(54) a. Hunden   är bunden.   Hundarna är bundna.   (Swe)
      b. Hunden   er bunden.   Hundane er bundne.   (WNor)
      c. Hundurin er bundin.   Hundarin eru bundnir.   (Far)
      d. Hundurinn er bundinn.   Hundarnir eru bundnir.   (Ice)
          the.dog   is tied   *the.dogs   are tied*
          'The dog is tied'   'The dogs are tied'

The incorporating languages are Faroese, Western Norwegian, and Swedish (taking Faroese to be incorporating, i.e. despite the optionality there). The pattern is represented in (55), with Swedish requiring, Western Norwegian preferring, and Faroese allowing incorporation.

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[13] Eastern Norwegian includes the Oslo dialect, and for the purposes of this paper can be equated with 'Standard Norwegian.' I represent it using Bokmål. My Northern Norwegian examples are based on Tromsø dialect, using a slightly modified Nynorsk othography.

[14] What I am calling Western Norwegian is a collection of dialects in mainly rural parts of western Norway, not including Bergen or other large population centers, which pattern more closely with Eastern Norwegian. I represent Western Norwegian with the Nynorsk orthography. Thanks especially to Turid Holen and Hildegunn Bruland for discussion of the data.

(55) a.   Träden blev {*huggna ned /   nedhoggna}.   (Swe)

   b.   Trea   vart {??hogne ned /   nedhogne}   (WNor)

   c.   Trøini   blivu {høgd   niður / niðurhøgd}.   (Far)

   d.   Tréin   voru {hoggin   niður/*niðurhoggin}   (Ice)
        the.trees were   chopped down   down.chopped
        'The trees were chopped down'

Icelandic appears to be the sole exception to the correlation of participle agreement with particle incoporation. However, there is another way in which Icelandic is different. In Icelandic, but not in the other languages, participial agreement is independent of A-movement. This can be seen by considering the impersonal passives in (56). In passives with A-movement, the participle agrees, as in (54) and (55) above, but in the impersonal constructions the participle is default singular in Western Norwegian and Swedish, but agreeing neuter plural in Icelandic (more on the lack of incorporation momentarily).[15]

(56) a.   Det   blev hugget ned   många träd.   (Swe)

   b.   Det   vart hogge   ned   mange tre.   (WNor)

   c.   Tað   blivu høgd   nógv   trø niður.   (Far)

   d.   Það   voru hoggin   niður mörg tré.   (Ice)
        there were chopped down many trees down
        'Many trees were chopped down'

The Faroese verb in (56c) does not unambiguously show agreement or lack thereof, but the examples in (57), from Sandøy 1976, suggest that agreement is dependent on A-movement (cf. Taraldsen 1995 for an analysis of this type of causative, in which the order in (57a) is derived by A-movement).

(57) a.   Vit royndu at fáa ærnar   hongdar upp.   (Far)
        we tried   to get the.ewes up.hung   up
        'We tried to get the ewes hung up'

   b.   Vit royndu at fáa hongt ærnar   upp.
        we tried   to get hung the.ewes up
        'We tried to get the ewes hung up'

In Faroese, Western Norwegian, and Swedish, agreement is dependent on there being overt movement through the specifier of an agreement phrase (cf. Kayne 1989, Christensen & Taraldsen 1989). In Icelandic, on the other hand, agreement obtains regardless. There have been various proposals to account for this difference in agreement systems, for example Sigurðsson 1993, who suggests that Icelandic uses Case to mark thematic dependency, whereas Western Norwegian and Swedish use

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[15] There are western Norwegian dialects with the Icelandic pattern, cf. Christensen & Taraldsen 1989. The prediction would seem to be that they fail to incorporate, as Icelandic does. However, as Christensen & Taraldsen point out, those dialects tend to show a distinction between *det* 'it' and *der* 'there', unlike Icelandic. Possibly, then, agreement is configurational there as well, but agreement is indirect, through the expletive *der*, as in English, and then incorporation may well pattern with Swedish.

configuration; when the internal argument of the verb appears in its base position, it is configurationally identified in Norwegian and Swedish, but not in Icelandic. Hence, Icelandic identifies that argument with agreement, while Swedish and Norwegian do not. However, such proposals rely crucially on s-structural conditions, which Chomsky 1992 suggests can be eliminated. Why should agreement be dependent on overt movement, given that the spec-head relation presumably obtains at LF?

A different possibility that will be fruitful to consider here is that in the languages in which agreement is dependent on overt configuration, Agr is deleted at LF, as in Chomsky 1992. This means that if the NP in question has not moved through SpecAgrP overtly, no agreement will occur. We must assume then that in Icelandic, agreement is not deleted at LF (cf. Holmberg & Platzack 1995 on the differences between Icelandic and Mainland Scandinavian Agr). I will return to this below.

5.3. Incorporation and A-movement

Now consider the distribution of incorporation. In Faroese, Western Norwegian, and Swedish, in other words all of the languages with productive incorporation, incorporation correlates closely with A-movement. (56) above showed all three languages (plus Icelandic) with failure to incorporate in the impersonal construction. In fact, incorporation is typically impossible in such constructions.

(58)   a. * Det blev nedhugget många träd. (Swe)

        b.?? Det vart nedhogge mange tre. (WNor)

        c. * Tað blivu niðurhøgd nógv trø. (Far)

        d. * Það voru niðurhoggin mörg tré. (Ice)
           there were down.chopped many trees

The same fact is demonstrated by the Faroese examples in (59), from Sandøy 1976 (cf. (57)).

(59)   a.   Vit royndu at fáa ærnar upphongdar (Far)
           we tried   to get the.ewes up.hung
           'We tried to get the ewes hung up'

        c. * Vit royndu at fáa upphongt ærnar.
           we tried   to get up.hung the.ewes

In each of the languages allowing incorporation, speakers typically prefer non-agreeing, non-incorporated forms when there is no A-movement, contrasting sharply with the preference for agreeing, incorporated forms when the subject is promoted as in (49) and (51) above. Norwegian again shows the most variation, with some speakers accepting unincorporated agreeing forms, and some speakers with no agreement at all accepting incorporated forms without A-movement; but the pattern I characterize here is also reported by Sandøy for the Romsdal dialect of Western Norwegian, with examples such as those in (60), showing incorporation when and only when there is A-movement (the examples do not unambiguously show agreement).

(60) a. Me prøvde å få slaktet {oppskore/*skore opp}. (WNor)
we tried to get the.carcass up.cut   cut   up
'We tried to get the carcass cut up'

   b. Me prøvde å få {skore opp/*oppskore} slaktet.
we tried to get cut up up.cut   the.carcass
'We tried to get the carcass cut up'

Thus, A-movement is closely correlated not only with agreement but also with incorporation. In fact, in Swedish, the logical subject does not have to move all the way to the subject position for agreement to take place; when the logical subject appears in an intermediate position, agreement is typically required and incorporation usually preferred, as indicated in (61a). This is also true for some Western Norwegian speakers, but most Western Norwegian dialects do not employ the intermediate landing site at all. Faroese appears to show the opposite pattern, with incorporation dispreferred.

(61) a. Det blev många träd {*huggna ned / nedhuggna}. (Swe)
   b. % Det vart mange tre {?hogne ned / nedhogne}. (WNor)
   c. Tað blivu nógv trø {høgd niður/?niðurhøgd}. (Far)
there were many trees chopped down down.chopped
'Many trees were chopped down'

The existence of non-incorporated agreeing forms and incorporated non-agreeing forms in various Norwegian dialects suggests that it is not agreement per se which triggers incorporation, but the correlation is close. In §5.4 I will argue that in general, A-movement triggers both, but (semi-)independently.

5.4. The Connection between A-movement and Incorporation

Why should A-movement trigger incorporation? A possible answer is provided by Kayne's 1993 analysis of auxiliary selection in Romance. Kayne argues that the auxiliary *have* is the result of the incorporation of an abstract functional element (which Kayne dubs D/P) into an abstract auxiliary BE. If no incorporation occurs, the auxiliary is *be*. Incorporation, according to Kayne, is triggered by A-movement. Kayne suggests that the specifier of D/P is an A-bar position, but that by incorporating into BE, which has an A-specifier, D/P becomes the sort of element which has an A-specifier, and thereby allows A-movement through its specifier. This matches the structures in question rather closely: the verb corresponds to BE, and the particle corresponds to the abstract functional head. This is mapped out in (62). The Spec position α is an A-bar position, in (62a), because of the nature of D/P, but it is an A position in (62b), after movement of D/P. The verb-particle construction might then be represented as in (62c).

(62) a.   BE $[_{D/PP}$ α D/P^0 [...]]

   b. D/P^0_i-BE $[_{D/PP}$ α t_i [...]]

   c.   ned$_i$-hogne $[_{D/PP}$ α t_i [...]]

But is the particle a functional element? I have not treated it as such, assuming instead that it has arguments like a lexical head and is dominated by a layer of functional structure. It should then have an A-specifier, without any incorporation. But if there is a functional head which must incorporate into the verb in order to permit A-movement, and if the particle happens to be located in that functional head when incorporation takes place, then the particle will be carried along. For Swedish, the prediction is clear: it has already been demonstrated that the particle in Swedish must appear in a high functional head, perhaps Agr. If this is the head which must incorporate in order for A-movement to take place, then incorporation of the particle in passive structures will be required, as desired.

What about Western Norwegian and Faroese? Since (participial) agreement there is configuration-dependent, I have suggested that (participial) Agr is erased at LF. Say, then, that in a language with active participial Agr (i.e. overt participle agreement) but in which Agr is erased at LF, if an NP appears in or passes through SpecAgrP in the participial nexus, then the lexical head of that nexus must move overtly to Agr in order to check the agreement features; not because they are strong, but because they cannot be checked at LF, when Agr is deleted. In languages with no agreement, like English and Danish, there are no features to check. In a language like Icelandic, in which Agr is not deleted at LF, the movement can take place covertly. Thus, in just those languages in which agreement is configuration dependent, the particle will move to Agr just when there is A-movement through SpecAgrP.

A derivation is diagrammed in (63) for an incorporating language (using Western Norwegian). (63a) represents a possible active s-structure (cf. (37) above). If an NP moves into SpecAgrP, in a language with configuration-dependent agreement, then some head (here, the particle) will have to move into Agr, as in (63b). This is an intermediate step. The NP must continue to a higher position, but in order for that to happen, Agr must incorporate into V, as in (63c).

(63)   a.   kaste $[_{AgrP}$ Agr^0 $[_{TP}$ $hunden_i$ T^0 $[_{PP}$ t_i ut]]]
       b.   kaste $[_{AgrP}$ $hunden_i$ ut_k $[_{TP}$ t_k' $[_{PP}$ t_i t_k]]]
       c. ut_k-kaste $[_{AgrP}$ t_i'' t_k'' $[_{TP}$ t_i' t_k' $[_{PP}$ t_i t_k]]]
               out throw   the.dog   out   the.dog   out

Agr incorporates into V to license A-movement in all languages, but in Icelandic, English, and Danish, it is empty at the time. Only in Swedish, Western Norwegian, and Faroese does it carry the particle along with it. When there is no A-movement, there is no incorporation (the behavior of Faroese with respect to the intermediate position is still unexplained).

There is something strange about placing the particle, which is tenaciously non-agreeing, in Agr in order to satisfy an agreement requirement. But possibly, this in itself is the reason that incorporation must occur. In exactly these languages, the participle does agree, so by attaching to the verb, the particle does become part of an agreeing complex.[16]

_____

[16] So Agr with a non-agreeing head has an A-bar specifier. Note that this can be the landing site for a

Notice that at this point a certain prediction is made regarding Faroese. I claimed in §4.3 that Faroese has a strong D feature in Agr, like Danish. But Faroese, unlike Danish, has configuration-dependent agreement, which I have suggested requires that if an NP appears in SpecAgrP, then a head appears in Agr. This would mean that Faroese particles are always in Agr, though the word order will still be NP-Prt, as in Danish. Thus there are now three different structures for the NP-Prt order, one for Danish, as in (64a), one for Faroese, as in (64b), and one for English, Norwegian, and Icelandic, as in (64c).

(64) a. smide [$_{AgrP}$ hunden$_i$ Agr^0 [$_{TP}$ t$_i$'   T^0 [$_{PP}$ t$_i$ ud]]]
      b. blaka [$_{AgrP}$ hundin$_i$ út$_k$ [$_{TP}$ t$_i$'   t$_k$' [$_{PP}$ t$_i$ t$_k$]]]
      c. kaste [$_{AgrP}$ Agr^0 [$_{TP}$ hunden$_i$ T^0 [$_{PP}$ t$_i$ ut]]]
          throw   the.dog out   the.dog   out

5.5. S-passives

At this point, the connection between Kayne's D/P projection in the participial phrase and the Agr projection in the particle phrase may be unclear. However, given the analysis sketched here, some additional puzzling facts about the incorporating languages begin to make more sense. Consider Kayne's observation that reflexive clitics in Romance languages allow the use of the auxiliary *be* with non-unaccusative predicates, as in (65).

(65) a. Maria ha comprato un libro.   (Ita)
          Maria has bought   a book
          'Maria has bought a book'

      b. Maria si   è comprata un libro.
          Maria RFX is bought   a book
          'Maria has bought a book'

According to Kayne, this is because the reflexive clitic 'activates' Agr, which incorporates into D/P, making SpecD/PP an A-position, and obviating the need for D/P to incorporate into BE. Considering the very different nature of the data that Kayne set out to explain, it is rather startling that exactly this structure has a close parallel in the Swedish verb particle construction. In Swedish there is an 's-passive,' where the '-s' suffixed to the verb is historically derived from a reflexive clitic. Just when the s-passive is used, incorporation of the particle into the verb does not occur.

(66) a. Hunden kastades ut.   (Swe)
          the.dog threw-pass out
          'The dog was thrown out'

      b.??   Hunden utkastades.
          the.dog   out.threw-pass

---

moved pronoun, but no NP can continue NP movement after stopping there; movement from an A to an A-bar position is good, but not movement from an A-bar to an A position.

If the '-s' in Swedish serves to 'activate' Agr in the way that Kayne proposes for Italian, then the results are exactly as predicted. SpecAgrP becomes an A-position because of the s-clitic moving through it, and incorporation of Agr into V is unnecessary (therefore impossible, by economy). This appears to hold generally for the incorporating languages (cf. Sandøy 1976, who shows that s-passives do not incorporate in Faroese or Icelandic, nor generally in the Romsdal dialect of Western Norwegian). I expand on this line of thinking in §6 below.

6. Kaynean participles and the *have/be* alternation

In the last section, I drew some parallels between the functional structure dominating the particle and the functional structure which Kayne 1993 proposed dominates the perfect participle, specifically comparing particle incorporation to the incorporation which leads to the auxiliary verb *have* in Kayne's analysis. Taraldsen 1983, 1991 argues for a connection between the behavior of particles in the Scandinavian languages and the distribution of the auxiliary *be*. In this section, I examine the parallels between the two functional phrases more closely and explore the connection to the distribution of *be*.

6.1. Swedish Pronouns

I need to account for one more empirical fact which I have not so far addressed, namely the fact that in Swedish, the particle obligatorily precedes not only full noun phrases, but even unstressed pronouns. This is seen above in (46c) and below in (67).

(67)   Vi kastade {*den} ut {den}.   (Swe)
          we threw   it   out it
          'We threw it out'

Given what has been said so far, this is unexpected. If pronouns move to SpecAgrP, as claimed by Bobaljik & Jonas 1994 and Vangsnes 1995, and if the particle in Swedish moves to Agr, satisfying the EPP, then the pattern expected is Prt-NP order with full noun phrases (a full noun phrase will stay low because the EPP is satisfied) but NP-Prt order with pronouns. This is in fact the pattern reported in Sandøy 1976 for Romsdal Norwegian (though it is not true of Western Norwegian in general).

(68)   a.   Vil du trille {inn} sykkelen {*inn}?   (Romsdalsmål)
             will you roll   in   the.bicycle in
             'Would you wheel in the bicycle?'
       b.   Vil du trille {*inn} han {inn}?
             will you roll   in   him in
             'Would you wheel it in?'

Possibly, then, the Romsdal dialect is properly analyzed as we have suggested Swedish to be (recall from §5.3 that Romsdal dialect was like Swedish with respect to incorporation as well). What about Swedish, then? How to explain the location of the pronoun? One possibility that comes to mind is that in Swedish, pronouns do not bear the strong features that force them to move to SpecAgrP in the other languages.

However, as discussed in §4.2, unstressed pronouns must appear in the higher subject position in Swedish clauses, indicated below in (69a), and furthermore, Swedish has object shift of unstressed pronouns, as in (69b) (though there is some degree of optionality here, more so for some speakers than for others; cf. Josefsson 1993).

(69) a. Har {han} möjligen {*han} läst boken?   (Swe)
          has he   possibly   he   read the.book
          'Has he possibly read the book?'
      b. Han läste {den} inte {?den}.
          he read   it   not   it
          'He didn't read it'

Thus, Swedish pronouns appear to raise as high as they do in the other Scandinavian languages, particularly in subject positions. If we assume that pronouns occupy the same position in the verb-particle constructions in Swedish, Norwegian, English, Icelandic, and Danish, then since the particle precedes the pronoun in examples like (67), the particle in Swedish must raise to a position higher than it (optionally) does in English, Norwegian, and Icelandic.

As discussed in §5.5, Kayne 1993 argues that auxiliary *have* is derived from the incorporation of an element which he labels 'D/P' (as it is like a determiner and like a preposition) into an abstract element BE, which is also the basis for the auxiliary *be*. The basic idea is that some predicates require a D/P projection above them, while other predicates do not. Take the simpler structure first: the VP headed by the unaccusative *arrive*, in a language with a *have/be* alternation, needs no D/P projection, and the derivation proceeds as in (70).

(70) a.   BE $[_{AgrP}$ Agr^0 $[_{VP}$ V DP $]]$
      b.   DP$_i$ BE $[_{AgrP}$ t$_i$ Agr^0 $[_{VP}$ V   t$_i$ $]]$
      c. I ragazzi$_i$ sono $[_{AgrP}$ t$_i$ Agr^0 $[_{VP}$ arrivati t$_i$ $]]$ (Ita)
          the boys are   arrived
                    ---------------- ---------------------

The derivation is shown schematically in (70a-b), and a sample surface structure is diagrammed in (70c) (using Italian). In (71), the intransitive predicate *telephone* requires a D/P projection (following Kayne this is because, having an external argument, it must have Agr$_S$, and Agr$_S$ requires D/P. In fact, Kayne also assumes that there is an Agr$_O$P dominating the participle).

(71) a.   BE $[_{D/PP}$ D/P^0 $[_{AgrP}$ Agr^0 $[_{TP}$ T^0 $[_{VP}$ DP   V $]]]]$
      b.   D/P^0_kBE $[_{D/PP}$ t$_k$ $[_{AgrP}$ Agr^0 $[_{TP}$ T^0 $[_{VP}$ DP   V $]]]]$
      c.   DP$_i$ D/P^0_kBE $[_{D/PP}$ t$_i$ t$_k$ $[_{AgrP}$ Agr^0 $[_{TP}$ T^0 $[_{VP}$ t$_i$ V $]]]]$
      d. The boys$_i$ have $[_{D/PP}$ t$_i$ t$_k$ $[_{AgrP}$ Agr^0 $[_{TP}$ T^0 $[_{VP}$ t$_i$ telephoned$]]]]$
          ------------|-------------- ---|---------------------

In (71a), the subject noun phrase cannot escape the D/P projection (as noted, Kayne suggests that SpecD/P is an A-bar position, unavailable to A-movement). However, if

D/P incorporates into BE, as in (71b), then SpecD/P becomes available as a landing site (recall that Kayne suggests that if BE has the property of having an A-specifier, then t_k, the trace of D/P, will inherit this property after incorporation). Then the subject raises through SpecD/P, as in (71c), corresponding to the sentence diagrammed in (71d).

The D/P head postulated by Kayne is similar to C in that it takes AgrP as its complement. Representing this head as C_p, and importing it into the verb-particle construction, we have s-structures like those in (48).[17]

(72)   a.   smide [$_{CpP}$ C_p [$_{AgrP}$ hunden$_i$ Agr [$_{TP}$ t_i'   T [$_{PP}$ t_i ud]]]]   (Dan)
       b.   blaka [$_{CpP}$ C_p [$_{AgrP}$ hundin$_i$ út$_k$ [$_{TP}$ t_i' t_k' [$_{PP}$ t_i t_k]]]]   (Far)
       c.   kaste [$_{CpP}$ C_p [$_{AgrP}$ Agr [$_{TP}$ hunden$_i$ T [$_{PP}$ t_i ut]]]]   (Nor)
       d.   kaste [$_{CpP}$ C_p [$_{AgrP}$ Agr [$_{TP}$ ut$_k$[$_{PP}$ hunden t_k]]]]   (Nor)
       e.   kasta [$_{CpP}$ ut$_k$ [$_{AgrP}$ t_k" [$_{TP}$ t_k' [$_{PP}$ hunden t_k]]]]   (Swe)

In Danish and Faroese, as already argued, there is a strong D feature in Agr which attracts the NP. In Faroese, in addition, agreement forces the particle into Agr. In Norwegian, there is a strong N feature in T, which attracts the NP or the particle, giving the two options in (72c-d). English and Icelandic have the same two options. Finally, Swedish is like Norwegian in having the EPP feature in T, but an additional feature attracts the particle to C_p, and it checks the N feature in T along the way. Thus the analysis functions as before but with an additional layer of structure. A-movement through SpecAgrP will still require Agr to move, but now it will move through C on its way to V. Pronouns occupy SpecAgrP in all the languages.

6.2. The *have*/*be* Alternation

Postulating an additional layer of structure has made the particle small clause maximally similar to Kayne's proposal for participial phrases and therefore also to the clause. How close are the parallels between the structures containing particles, explored here, and the structures containing participles, which were Kayne's original motivation for this functional structure?

For Kayne, there are two types of language, one in which the extended functional structure appears above all participles, giving rise to auxiliary *have* in every case (as in English), and one in which the argument structure of the participle determines how much structure is projected; an unaccusative participle projects only an AgrP, crucially not a D/PP, and no incorporation takes place, the auxiliary surfacing as *be* (as in Italian).

The Scandinavian languages show the pattern illustrated in (73).

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[17] The notation may seem opaque, but I find it less cumbersome than 'D/P.' I use the C to suggest that there are parallels with the clausal complementizer system (as Kayne suggests), but employ the subscript to indicate that I do not claim that all properties of this element will necessarily be shared with a clausal C. The subscripted P is intended to suggest 'particle' and 'participle,' as this particular element must occur in at least those two contexts.

(73) a. Drengene {*har forsvundet /er forsvundet}.   (Dan)

   b. Strákarnir {hafa horfið   /eru horfnir}.   (Ice)

   c. Guttene {har forsvunnet /er forsvunne}.   (Nor)

   d. Pojkarna {har försvunnit /*är försvunnet}.   (Swe)
      the.boys   have disappeared/are disappeared
      'The boys have disappeared'

(Faroese patterns with Danish.) Interestingly, Swedish, which I have argued has a strong feature in D/P, always requires D/P to be present (but note that English also has *have*, but not a high particle). In what follows I will show some support for the connection between the particle small clause and the participial small clause, based on the pattern in (73).

6.3. Aspectual Information

Why should the argument structure of the participle determine whether there is a D/P? For Kayne, an external argument entails an Agr_S, and this entails a D/P, by stipulation. But why should this be so? And does it in fact make sense to distinguish Agr_S from Agr_O? Kayne assumes that an unaccusative participle only projects a single Agr phrase; suppose this is Agr_O. But a finite unaccusative verb shows ordinary subject agreement.

(74)   I ragazzi arrivano.   (Ita)
        the boys arrive.PL
        'The boys arrive'

Does a finite unaccusative V also project Agr_S? More satisfying is to try to avoid reference to special features of Agr_S vs. Agr_O. This means that we cannot say that one Agr, but not the other, requires the presence of D/P.

   Another possibility is to consider the role of aspect. Unaccusatives are aspectually distinct from intransitives (cf. Levin & Rappaport Hovav 1995 and references cited there). Assume that intransitives, but not unaccusatives, necessarily project a functional projection to house aspectual information; say this projection is T (T might be independently required in finite clauses to house tense information). Now it is the presence of T, rather than of Agr, which requires D/P; this is more plausible, given the connections between C and T generally (e.g. *for* appears with *to*, and *that* appears with finite T).

   Then in languages with no *have*/*be* alternation, T is always projected, even with unaccusative participles. In languages with a *have*/*be* alternation, T is absent when there is no aspectual information of the relevant kind. What is relevant varies somewhat from language to language. For Faroese and Danish, unaccusatives never appear with *have*, as indicated in (73a) above (for Danish). For Norwegian and Icelandic, an event-type reading allows use of *have*, whereas a stative reading requires (in Icelandic) or allows (in Norwegian) the auxiliary *be*.

(75) a.   Hann hefur aldreg komið   hingað.   (Ice)

      b.   Han   har   aldri   kommet hit.   (Nor)
            he   has   never   come   here
            'He has never come here'

      c.   Hann er ekki kominn   hingað.   (Ice)

      d.   Han   er ikke kommen hit.   (Nor)
            he   is not come   here
            'He has not come here' (i.e. he's not here now)

This fits nicely with the idea that aspectual information is what determines the presence of T, and that T determines (ultimately) whether *have* or *be* occurs. The distribution of D/P will still be as Kayne assumes, namely whenever there is an external argument there will be a D/P.

6.4. Unaccusative Particles

If there are small clauses without T, then the effects of T should also be absent in those cases. In Norwegian and Icelandic, I have argued, EPP effects are linked to T; not so in Danish. In the verb-particle constructions which I have considered here, there is always an external argument, and hence always a T and a D/P (because of the aspectual nature of anything with an external argument). However, there is one construction in which the particle can be analyzed as 'unaccusative,' as there is no overt Figure argument. These constructions are extremely restricted in distribution, but one example appears in (76c).[18] In (76a), *the dust* is the Figure and *the table* is the Ground. As indicated in (76b-c), either of these arguments can be omitted.

(76) a.   The waiter wiped the dust off the table.
      b.   The waiter wiped {off} the dust {off}.
      c.   The waiter wiped {off} the table {off}.

In English, there is no *have/be* alternation, so regardless of the argument structure of the particle, the full C_pP-AgrP-TP structure will appear, with all the concomitant strong features. However, in Norwegian, Danish, and Icelandic, where verbs with no external arguments do not appear with a T projection, we expect the particle with no external argument to have a different structure. In Norwegian and Icelandic, since the EPP effects are linked to T, the EPP effects should be absent in just these cases. The data for examples like (76b-c) is given in (77-80) for the Scandinavian languages.

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[18] Typical examples involve a Ground which could be the Theme or Patient argument of a transitive use of the same verb; e.g. as in *The waiter wiped the table*. Cases where the unexpressed Figure is something removed from the expressed Ground are more common than anything; cf. Levin & Rappaport Hovav 1993 on alternations involving verbs expressing removal.

(77)	a.	Tjeneren tørket {*af} støvet {af}.	(Dan)
	b.	Kyparen torkade {av} dammet {*av}.	(Swe)
	c.	Kellneren tørket {av} støvet {av}.	(Nor)
	d.	Þjónninn þurrkaði {af} rykið {af}.	(Ice)
		the.waiter wiped off the.dust off	

(78)	a.	Tjeneren tørket {*af} bordet {af}.	(Dan)
	b.	Kyparen torkade {av} bordet {*av}.	(Swe)
	c.	Kellneren tørket {av} bordet {*av}	(Nor)
	d.	Þjónninn þurrkaði {af} borðinu {*af}	(Ice)
		the.waiter wiped off the.table off	

As seen in (77), the construction with the Figure argument behaves exactly as already described, for each language. But in (78), the pattern is different. Danish is the same, because the EPP is located in Agr, and Agr is present. Swedish (like English) is the same, because there is no *have*/*be* alternation and T is always present. But in Norwegian and Icelandic, just when the T projection is absent, the EPP effects are called off and the NP (in this case the complement of the particle) stays low.[19]

7.　Conclusion

Following Kayne 1985, I have assumed a small clause structure for the verb particle construction, one informed by a certain understanding of the argument structure of prepositions. I have suggested that a Hale & Keyser type analysis of apparently 'intransitive' prepositions has some advantages. I have suggested that small clauses are subject to the EPP, but that in the small clauses which appear in the verb-particle construction, head movement of a particle with an incorporated nominal element may obviate or satisfy the EPP.

Following Kayne 1993, I have assumed an articulated structure for embedded predicates, including participles and particles. This structure involves at least two functional heads, probably three, corresponding to C, Agr, and T in the clause.

In all of the languages discussed, 'subject' pronouns move overtly to SpecAgrP, in full clauses as well as small clauses (object pronouns move only when there is verb movement).

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[19] In Faroese, something else happens. The Ground argument may take accusative case, in which case the structure is as in Danish, as expected. But when it has dative case, governed by the preposition, it stays in place, as in Icelandic.

[i]	a.	Tænarin turkaði borðið av	(Far)
		the.waiter wiped the.table.ACC off	
	b.	Tænarin turkaði av borðinum.	
		the.waiter wiped off the.table.DAT	

Note that in general, the position of the particle makes no difference in the case of the NP, as can be seen from any of the various Icelandic examples throughout this paper. The case on the Figure NP is always determined by the verb and not the particle, though Ground NPs have their case determined by the particle.

In all of the languages discussed, there is a strong feature (the EPP feature) either in Agr (Danish and Faroese) or in T (the other languages), which must be checked by overt movement of some element. In Danish and Faroese, the strong feature in Agr is a 'D' feature and always forces movement of a NP to SpecAgrP. This is why in the Danish clause, the subject must precede adverbials, and in the Danish verb-particle construction, the VP internal noun phrase must precede the particle. In the other languages, the strong feature in T is an 'N' feature; this feature is satisfied either when an NP moves into its specifier position or when a particle with an incorporated nominal argument moves into T. English, Norwegian, and Icelandic exercise both options.

In Swedish, there is a strong Aspectual feature in C, requiring the Particle to move there in verb-particle constructions, and placing the particle higher than the position of a pronoun in SpecAgrP.

In languages with participial agreement which is dependent on A-movement, there is also incorporation of the particle with the verb in case of A-movement of the NP subject of the small clause past the verb. I have suggested that this is explained along the lines of Kayne's analysis of the formation of *have*. A functional head which happens to contain the particle (because of the nature of Agr in those languages) has to incorporate with the verb in order to allow A-movement through its specifier.

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