Scrambling and Object Shift: Synthesis Article

[for Hartmann, Mursell & Wurmbrand (eds), *Handbook on the Syntax of the Germanic Languages*]

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1 Movement or base-generation?

Throughout its history, the standard response in mainstream Chomskyan generative grammar to grammatical phenomena in which an element occurs in a position in which it does not appear to be able to satisfy (all of) its selectional requirements has been to propose that the element in question undergoes movement from the position in which it satisfies these selectional restrictions into the position in which it surfaces. This response is prominently on display in the generative literature on object shift and scrambling. Neither of this volume's contributions on object shift considers the possibility that the 'shifted' object might be base-generated in the position in which it is pronounced; nor does the literature on which these chapters draw. For scrambling, Diesing makes it explicit in her opening paragraph that she assumes a derivational account; and although Salzmann's chapter helpfully includes some discussion of a 'delayed gratification' approach to argument scrambling (difficult to apply to predicate scrambling; see section 6.5), it, too, concentrates on movement analyses — justifiably, in light of the general tenor of the generative literature.

It will be worth our while, right at the outset, to place the consensus on object shift as movement in the perspective of a phenomenon which has important properties in common with object shift but for which the generative tradition offers two starkly different types of approach: 'raising to object' (or 'subject to object raising'), instantiated by sentences of the type *Bill believes John to be a liar*. For Postal (1974), this phenomenon involved movement of the subject of the infinitival clause (*John*) into an object-like position in the matrix clause — not the thematic object position, of course (after all, if *Bill believes John to be a liar* is true, it is emphatically not the case that Bill actually believes John), but a position in which the matrix verb can assign accusative case to *John* in a local syntactic configuration parallel to the one in which ordinary direct objects are assigned accusative case in sentences such as *Bill believes John*. But the 'government and binding' framework of Chomsky (1981, 1986) analysed *Bill believes John to be a liar* without an appeal to movement of *Bill* into the matrix clause: the accusative noun phrase remains inside the infinitival clause, where it is licensed via 'Exceptional Case-Marking' (ECM). As its name suggests, ECM was not straightforwardly compatible with one of the linchpins of early principles-and-parameters theory: an approach to case assignment employing government. A renewed focus on Postalian data (Pesetsky 1989, Johnson 1991) coupled with the abolition of government in Chomsky (1995:Ch. 3) subsequently heightened the interest in object shift and Holmberg's Generalisation (Holmberg 1986, 1999), reviving the movement approach to 'raising to object'. The postulation of a non-thematic specifier of a head in the (extended) projection of the verb (originally AgrO, later *v* or Asp, or even the verbal root itself; mark the difference here between Chomsky *et al*. 2023 and Chomsky, to appear, regarding the landing-site of object shift: the edge of the root-VP *vs* the edge of *v*P) made such raising technically much more feasible than it was in Postal's time. Meanwhile, the advent of Agree facilitated a re-emergence of *in situ* approaches. The grammaticality of *Bill made John <u>out</u> to be a liar* alongside *Bill made <u>out</u> John to be a liar* (Kayne 1985) may indicate that a 'divide and conquer' approach is needed, with the former variant instantiating 'raising to object' (landing *John* between V and *out*) and the latter 'ECM'/Agree and *in-situ* placement of the accusative (see Lasnik 2001 for discussion).

The case of 'raising to object' *vs* 'ECM' places the consensus on object shift as movement in a broader perspective. But object shift and 'raising to object' are not (necessarily) one and the same thing. Indeed, although both phenomena implicate accusative case assignment and are, as a consequence, confined in their application to nominal constituents, 'raising to object' is strikingly different from object shift in at least two salient respects: Postal-style 'raising to object' *(a)* affects subjects (of non-finite or small clauses; cf. the name 'subject to object raising', under which the phenomenon was originally known), and *(b)* can target full DPs, whereas object shift in Mainland Scandinavian (languages which, unlike Icelandic or Faroese, are comparable to English for their inflectional poverty) can only affect weak pronouns. Regarding *(a)*, it is relevant that Jónsson's chapter briefly mentions that weak subject pronouns in the Insular Scandinavian languages are no different from weak object pronouns 'in that they cannot immediately follow adverbials' — so subjects *per se* are not entirely averse to shifting in the Scandinavian languages. But even so, English appears to constrain object shift more narrowly than Scandinavian: Bošković (1997) declares object shift optional for objects but obligatory for accusative subjects of small and infinitival clausal complements; Hong & Lasnik (2010) argue that object shift of accusative subjects of predication is obligatory only for small clause subjects, not for subjects of infinitival clausal complements.

If 'raising to object' involves the placement of the accusative noun phrase in a position on the edge of a(n extended) projection of the matrix verb, this does not compel one to assume that movement is involved in it. For 'raising to subject', non-movement analyses are on the market for constructions ranging from semi-copular *John seems to be sick* via 'hyperraising' (Brazilian Portuguese *o João parece que 'ta doente* 'João seems that is sick'; Ferreira 2000, 2004, Martins & Nunes 2006, Nunes 2008) to 'copy raising' (*John seems* {*like*/*as if*/*as though*} *he's sick*; Potsdam & Runner 2001, Asudeh & Toivonen 2012). 'Hyperraising' and 'copy raising' also manifest themselves for accusatives: Japanese has 'hyperraising to object' (Kuno 1976), and 'copy raising to object' is found in colloquial English, as in the following naturally occurring sentence found on the internet: *Trump isn't even in office and people consider him like he is Jesus*. A base-generation analysis for the accusative examples is likewise feasible (see Den Dikken 2018b). So a non-movement approach to raising phenomena should certainly be on the table. This is particularly so in light of the fact that there exist 'copy raising' constructions for which an analysis exploiting movement would be extremely difficult to maintain: in *John seems like his mind is made up* or *John seems like she terrifies him*, the establishment of a movement dependency between *John* and *his*/*him* would require major departures from received theoretical wisdom (genitival possessors cannot otherwise be promoted to subject in English, and NP-movement of an object across a nominative subject is probably universally impossible).

There is much to be said, therefore, for a serious investigation of the feasibility of a non-movement approach to 'accusative shift' phenomena in general — including not just 'raising to object' but also Scandinavian object shift and object scrambling. Jónsson's contribution to this volume (which starts out by saying that the term 'object shift' 'refers to object movement to the left of sentential adverbials') brings together arguments to the effect that the type of movement involved in object shift is A-movement. But the foundation for A-movement is precisely the weakest of all the types of movement standardly recognised in the generative approach, weaker even than head movement (about which the debate is mostly not empirical but ideological). For presumed A-movement of the external argument from its θ-position into the structural subject position, the field has long acknowledged its lack of unequivocal evidence: even though the existence of two subject positions (one higher than the other) is not in question, whether the connection between the two is forged by movement cannot be given a categorical reply (thus, see

Diesing's 1992 control approach to this connection in the case of individual-level predications, though not for stage-level ones). As we have already seen, for 'subject-to-object raising' the pendulum has swung from movement (Postal 1974) via non-movement (ECM; Chomsky 1981) back to movement (early minimalism's AgrOP), then back again to non-movement (Agree), and once again back to movement (Chomsky to appear); but the movement analysis of 'subject-to-subject raising' has remained the default. It is empirically undeniable that there exist cases in which the subject of a non-finite subordinate clause finds itself not in the structural subject position of that clause but in the matrix clause instead. But much depends on one's outlook on the establishment of long-distance dependencies whether such cases require movement or can be adequately (and, if so, more efficiently) dealt with without an appeal to movement. For instance, if one's theory allows idiom-chunk subjects to be associated to a complex predicate that contains more than just the minimal projection of the predicate head with which they are idiomatically construed (as is necessary for *Headway is tough to make on this project*), the syntax of *The shit seems/is likely to be hitting the fan* ('subject-to-subject raising') or *They have expected the shit for a long time time now to be hitting the fan soon* ('subject-to-object raising') can be simplified to involve base-generation of the idiom chunk *the shit* in the matrix clause. A-movement is often in the eye of the beholder, with the lens focused by the theory to which the beholder subscribes. The debate about A-movement is still ongoing. But for object shift, the literature has been remarkably univocal: movement is involved, and the movement in question is A-movement.

Part of the univocality regarding object shift as movement is rooted in the facts of Holmberg's Generalisation, which link object shift to movement of the verb out of VP. The interaction between the two movement processes was recast in an interesting way in early minimalism from the perspective of the minimal link condition and equidistance (Chomsky 1995:Ch. 4), domain-extending head movement (Den Dikken 2007), and cyclic linearisation (Fox & Pesetsky 2005). All of these accounts ensured (albeit in different ways) that the shifted object and the verb must generally preserve their relative order — indeed, order preservation is a key hallmark of object shift (but on the possibility of object shift past the subject, see section 3), running deeper than what the narrow discussion of Holmberg's Generalisation in early minimalism focused upon.

For Fox & Pesetsky (2005), an important ingredient of the analysis of Holmberg's Generalisation and order preservation under object shift is the pair of hypotheses that object shift exits the lower phase (*v*P) and cannot exploit the edge of that phase as an intermediate landing-site. If it could, it ought to be possible for the underlying relative order of the shifted object and other material in the *v*P (including the verb) to be reversed in that first step of movement, at the point at which the first linearisation instruction is given to the PF component; beyond this point, it would then have to be this reversed relative order that would have to be preserved, which would deliver results that are the opposite of what we find. So an intermediate stop-over on the edge of the lowest spell-out domain must be proscribed in the case of object shift.

It may be that the 'fell-swoop' nature of object shift is an instrinstic side-effect of the nature of the movements and positions involved: if object shift is A-movement (see section 2) and the edge is defined as an Ā-position, then a stopover on the edge under object shift will instantiate 'improper movement'. But an alternative response to the apparent prohibition on an intermediate stopover would be to deny that object shift involves movement. A base-generation analysis may make it more readily understandable why object shift generally preserves the underlying relative order of nominals and why even the relative order of the verb and the object(s) remains unaffected (Holmberg's Generalisation). Indeed, all things considered, object shift could be a poster child for base-generation rather than movement. A non-movement approach to object shift certainly deserves a prominent spot on the generative research agenda.

For scrambling as well, the generativist's natural inclination towards a movement analysis is clearly in evidence. While Diesing's chapter on scrambling in Yiddish assumes a derivational approach without argument, it hastens to add that 'nothing essential hinges on this stance'. In reality, the question of whether scrambling is an instance of movement or base-generation is an important point of contention — and because of the complexity of the empirical side of the matter, the jury is still out on which of the two logically possible approaches is the optimal one. Scrambling has been taken by many to show at least some of the hallmarks of movement. But as Salzmann's chapter on scrambling in the West-Germanic OV-languages takes great care to demonstrate, the matter is far from straightforward, especially for scrambling of *nominals* (on scrambling of non-nominal material, see §2). Salzmann considers seven potential indicators of the involvement of movement or the origination of the scrambled material in a position lower than its surface position. (Note that evidence for a low position of (an associate of) the scrambled element is not in itself tantamount to evidence for movement: the lower element could be a non-trace/copy associate of the scrambled element; recall 'copy raising', and see also Chomsky *et al.*'s 2023 Form Copy approach to obligatory control.) These indicators are *(i)* 'freezing effects', *(ii)* locality effects, *(iii)* the fact that remnant movement cannot involve the same kind of movement as the operation that created the remnant (the 'Müller-Takano generalisation', which Salzmann illustrates and briefly discusses in his fn. 11; it seems to me that these data deserve a more prominent position in the debate), *(iv)* parasitic gap licensing, *(v)* reconstruction, *(vi)* focus projection, and *(vii)* opacity. Thoughtfully dismissing *(i)*, *(iii)*, *(iv)*, *(v)* and *(vi)*, Salzmann concludes that of all these diagnostics, at most one or two provide reasonably reliable support for movement being involved in scrambling.

Regarding locality *(ii)*, Salzmann writes that 'it is completely accidental under a base-generation approach that the very same factors that make wh-movement or prefield-fronting from DP more difficult also affect DPs from which no extraction has taken place'. But this may not be a complete accident if the locality effects involved are a matter of construal, not necessarily implicating a trace. Relevant in this connection is the behaviour of 'extraposition'. The locality constraints on extraposition are severe — indeed, more so than the locality constraints on Ā-movement (see Ross's 1976 Right Roof Constraint, entirely specific to extraposition). Culicover & Rochemont (1990) and Rochemont & Culicover (1990) have forcefully brought home the point that a base-generation approach to extraposition is superior to a movement analysis.

Of all the arguments advanced over the years in favour of a movement analysis of scrambling, the one that Salzmann finds truly 'interesting and convincing' (although he admits that the argument is dependent on assumptions not necessarily shared) is the argument based on opacity *(vii)* presented by Heck & Himmelreich (2017), involving an intricate cluster of facts from German. It will be worth our while to sort through this argument in some detail. Heck & Himmelreich (2017) lay out a two-pronged case, based on parasitic gap licensing and quantifier float. The first prong needs to be handled with extreme care because, as Salzmann is right to point out, it is doubtful that genuine parasitic gaps are allowed under scrambling (see also section 6.4, below). Like Salzmann, I will therefore concentrate on the portion of Heck & Himmelreich's opacity argument built on the distribution of the invariant floating quantifier *alles* 'all' — and even here, I will limit myself further, just to the simple transitive examples. (Scrambling in ditransitive constructions will be taken up separately, in section 6.4.)

Heck & Himmelreich point out that when a subject-*wh* wants to associate with the FQ *alles*, no indefinite object can occur in between the *wh*-constituent and *alles* while the presence of a definite object between the two is innocuous: (1a,b). But association of an object-*wh* to *alles* is possible across an intervening subject regardless of whether it is definite or indefinite: (2a,b).

(1) a. *wer hat einen Professor alles vergöttert?
who.NOM has a professor.ACC all idolised
b. wer hat diesen Professor alles vergöttert?
who.NOM has this professor.ACC all idolised

(2) a. wen hat ein Professor alles beleidigt?
who.ACC has a professor.NOM all insulted
b. wen hat dieser Professor alles beleidigt?
who.ACC has this professor.NOM all insulted

This quartet of sentences shows that no simple generalisation couched in terms of linear intervention of an indefinite between the *wh*-constituent and *alles* could capture what is going on: there arguably *is* such intervention, but it is opaque on the surface. Salzmann summarises how Heck & Himmelreich derive the facts from a derivational approach to scrambling. My aim in the remainder of this section is to show that a close look 'under the hood' of the pattern in (1)–(2) brings the discovery that the explanation for it requires no recourse to a derivational approach.

Let me begin by showing that the pattern in (1)–(2) is not unique to German. Though Dutch cannot rely on morphological case marking to bring out the difference between a subject reading for the *wh*-constituent and an object reading, there is something else that allows us to tell the two readings apart in Dutch: unlike in English or German, in Dutch *wie* 'who' qua subject can control plural agreement with the finite verb (*Wie gaan er (allemaal) naar het feest?* 'who go.PL there all to the party'). Since object-*wie* never brings about plural verb inflection, the use of a plural finite verb in the presence of a singular indefinite common noun phrase to its right is a diagnostic for the subject reading of the *wh*-element — and, concomitantly, for the object reading of the singular indefinite. (When the finite verb and the indefinite are both singular or plural, there is no morphological way to tell whether the indefinite is the subject or the object. But in the examples that follow, world knowledge will help identify its grammatical function: professors can flunk students but not the other way around.) With this in mind, consider (3)–(4) (where the finite verb is underlined for easy spotting) — a replica of the German pattern in (1)–(2).

(3) a. *wie hebben een student allemaal laten zakken?
who have.PL a student all let flunk
b. wie hebben deze student allemaal laten zakken?
who have.PL this student all let flunk

(4) a. wie heeft een professor allemaal laten zakken?
who has.SG a professor all let flunk
b. wie heeft een professor allemaal laten zakken?
who has.SG a professor all let flunk

Staying with Dutch (in part because Heck & Himmelreich dwell in great detail on the German data, and in part because I have native-speaker access to the Dutch facts), I proceed to showing that confining attention to just the picture in (3)–(4) would be a serious mistake. The a–examples paint a picture that is incomplete and misleading. For it turns out that *(a)* it is not the case that anytime an indefinite object intervenes between a *wh*-subject and its associated floating quantifier the result is ungrammatical, and *(b)* it is not the case that indefinite subjects are always free to intervene between a *wh*-object and its floating quantifier. The empirical landscape of the a–examples can be flattened or even turned completely upside-down as a function of the interpretation of the indefinite intervener.

Consider the following enhancement of the Dutch renditions of the Heck & Himmelreich examples in (1a) and (2a):

(3) a. *wie hebben een student allemaal laten zakken?
who have.PL a student all let flunk
a′. wie zouden een student Engels allemaal graag laten zakken?
who would.PL a student English all gladly let flunk
a′′. wie hebben nog nooit ook maar één student allemaal laten zakken?
who have.PL yet never also but one student all let flunk

(4) a. wie heeft een professor allemaal laten zakken?
who has.SG a professor all let flunk
a′. wie zou een docent Engels allemaal graag laten zakken?
who would.SG a teacher English all gladly let flunk
a′′. *wie heeft nog nooit ook maar één professor allemaal laten zakken?
who has.SG yet never also but one professor all let flunk

The single-prime examples feature *een student Engels* 'an English major' and *een docent Engels* 'an English teacher' as the generic subject and object, resp. — their genericity being conditioned by the use of the conditional (*zou(den)* 'would'): 'in general, for an English major, give me all the people who would gladly flunk him/her'; 'in general, for an English teacher, give me all the people whom (s)he would gladly flunk?'. The fact that (3a′) and (4a′) are both grammatical tells us that with a generic indefinite intervening between the *wh*-constituent and its FQ, the subject/object asymmetry seen in (3a) and (4a) goes away. And the double-prime examples, which involve the negative polarity item *ook maar één N* as the indefinite subject and object, resp., turn the contrast noted by Heck & Himmelreich entirely on its head: now it is the presence of an indefinite between the *wh*-object and its FQ that results in ungrammaticality (see (4a′′)) while intervention of the indefinite between the *wh*-subject and the FQ, as in (3a′′), is innocuous. There remains an interesting puzzle to be explained — but the nature of the puzzle is quite different from the one that Heck & Himmelreich set out to account for, and this has serious consequences for the conclusions that they themselves are led to, based on an investigation of just (1) and (2).

Though this is not the place to try to develop a complete analysis of the facts laid out above, I will make a first attempt in the ensuing paragraphs to plot out a trajectory through and out of the empirical maze. As we know from Diesing's (1992) and De Hoop's (1992) seminal work, indefinite subjects and objects can be either inside or outside *v*P — and the choice between these two placement options as a rule has consequences for their interpretation: indefinites inside *v*P are existentially quantified 'weak' indefinites; indefinites outside *v*P receive a 'strong' interpretation, either specific or generic. We also know that the subject of a Dutch *wh*-question can be *wh*-extracted either from inside *v*P (*Wie heeft er een idee?* 'who has there an idea', with the expletive *er* occupying SpecTP) or from the structural subject position (SpecTP). When the object is outside *v*P and the subject is *wh*-extracted from within *v*P, association of subject-*wie* 'who' with the FQ *allemaal* 'all' is possible locally and without intervention: see (5a). This yields the example in (3a′), with a generic reading for the scrambled indefinite object (cf. *Wie zouden (er) een mug allemaal meteen doodslaan?* 'who would (there) a mosquito$_{\text{GENERIC}}$ all immediately dead.beat'). When the scrambled object is inside *v*P, the subject cannot be pronounced within *v*P as well: **Er hebben nog nooit ook maar één student docenten literatuurwetenschap laten zakken* 'there have yet never also but one student literature professors let flunk' (intended: 'literature professors have never flunked any student'); see also Alexiadou & Anagnostopoulou (2001) on

the ban on both the subject and the object being spelled out inside *v*P. But this spell-out restriction should not prevent subject-*wie* from being *wh*-extracted from within *v*P and associating locally to FQ, as in (5b), the structure of (3a′′): in (5b), the subject is not pronounced inside *v*P along with the indefinite object. It seems safe to conclude that both (5a) and (5b) are grammatical structures; and accordintly, both (3a′) and (3a′′) are well-formed sentences.

(5) a. wh_{SU} ... [$_{\text{TP}}$ ... $\text{DO}_{[-\text{DEF}]}$ ... [$_{v\text{P}}$ $t_{wh\text{-SU}}$ [FQ ...]]]
b. wh_{SU} ... [$_{\text{TP}}$ ... [$_{v\text{P}}$ $\text{DO}_{[-\text{DEF}]}$ $t_{wh\text{-SU}}$ [FQ ...]]]

What, then, makes (3a) unacceptable? The episodicity of (3a) disfavours an interpretation in which *een student* 'a student' is interpreted generically; but interpreting *een student* existentially is intuitively difficult here. It appears that for a substring of the type *... een student allemaal ...* 'a student all', involving an indefinite object scrambled to the left of an FQ not associated to the object, the default syntax is one in which *een student* is outside *v*P. Positioning the scrambled object inside *v*P is possible, as we saw in (5b), the syntax of (3a′′). But an object scrambled across a quantificational element (here the FQ) within *v*P is apparently possible only when it is forced: in the particular case of (3a′′), the NPI-object is required to remain low in order to be licensable by the negation (*nooit* 'never'). For *een student* in (3a), nothing demands that it be interpreted inside *v*P; and since the indefinite physically occurs to the left of a FQ, which usually marks the left edge of *v*P, there is a natural inclination to place *een student* outside *v*P in (3a). But doing so delivers a clash between the resulting 'strong' reading of the indefinite and the episodicity of the sentence. This appears to be what is ailing the example in (3a). As soon as either a 'strong' (generic) reading for the indefinite is natural, as in (3a′), or the requirement that the indefinite be in the c-command domain of negation forces it to be interpreted within *v*P, as in (3a′′), the result of placing an indefinite object in between subject-*wie* 'who' and its associated FQ is grammatical. The example in (3a) (based on Heck & Himmelreich's German model) is part of a larger picture from which it emerges that intervention of an indefinite object between a *wh*-subject and its associated FQ is not categorically ungrammatical and that intervention of an indefinite subject between a *wh*-object and its FQ is not always licit. In light of this picture (quite a bit subtler than the one painted by Heck & Himmelreich), it is difficult to interpret (3a) by itself as an argument for scrambling involving movement.

In (4a) and (4a′), nothing prevents association of the trace of object-*wie* to the FQ as long as the indefinite subject is outside *v*P, as in (6a). An indefinite subject located outside *v*P is usually interpreted 'strongly', which fits generic (4a′) like a glove. But as we know from the ambiguity of *Firemen are available* (Diesing 1992), it is not altogether impossible for a subject in SpecTP to receive a 'weak' existential interpretation, so (4a) can be accommodated as well. However, an indefinite subject that is *necessarily* interpreted inside *v*P, in its base position, prevents association of the *v*P-adjoined intermediate trace of the *wh*-object with the FQ: the ill-formedness of the structure in (6b) underlies the unacceptability of the example in (4a′′).

(6) a. wh_{OB} ... [$_{\text{TP}}$ $\text{SU}_{[-\text{DEF}]}$ ... [$_{v\text{P}}$ $t_{wh\text{-OB}}$ [... FQ ...]]]
b. *wh_{OB} ... [$_{\text{TP}}$ ... [$_{v\text{P}}$ $t_{wh\text{-OB}}$ $\text{SU}_{[-\text{DEF}]}$ [... FQ ...]]]

So, all things (including (3/4a′,a′′)) considered, we come to the conclusion that the Heck & Himmelreich (2017) pattern involving FQs is only a fragment of the full puzzle. And though more work needs to be done before we can declare victory, it will probably emerge that once the complete puzzle is properly understood, it provides no argument for scrambling-as-movement.

2 If movement is involved, is it A- or Ā-movement?

Assuming nonetheless, if only for the sake of argument, that scrambling and object shift both involve movement, we are prompted to investigate what kind of movement this is — A- or Ā-movement?

For object shift, there are no indications of any kind to suggest that, if it is a case of movement, it is anything other than A-movement. Object shift only affects structurally case-marked noun phrases, is strictly clause-bounded, does not give rise to crossover effects, and does not license parasitic gaps. But as Salzmann puts it, when it comes to the distinction between A-movement and Ā-movement, '[i]t seems clear nowadays that scrambling doesn't fit into either category'.

Like object shift, scrambling is clause-bounded, suggesting that A-movement is involved — but Salzmann hastens to add that *wh*-movement does not easily traverse a clause boundary for many speakers of German either, 'rendering this diagnostic somewhat moot'. This is a perceptive comment. Dutch is perhaps particularly interesting in this connection. Although *wh*-movement in Dutch constituent questions is generally unbounded, cross-clausal topicalisation and *d*-word movement in relative clauses can pose much more difficulty. The contrast between *wh*-questions, on the one hand, and topicalisation and relativisation, on the other, is especially salient in the case of subject extraction out of a finite subordinate clause:

(7) a. ?welke dag wist je dat zou komen?
which day knew you that would come
'which day did you know would come?'
b. ?*deze dag wist ik dat zou komen
this day knew I that would come
'this day, I knew would come'
c. ?*de dag die je wist dat zou komen
the day D-PRON you knew that would come
'the day that you knew would come'

The English prose translations of all of these examples are fine. But though Dutch (7a) is itself already somewhat unnatural, the long-distance topicalisation and relativisation cases in (7b,c) are very poor. Example (7c), lifted *verbatim* from the *Koningslied* (the song written on the occasion of King Willem Alexander's accession to the Dutch throne), sparked a great deal of furore from Dutch native speakers who found the sentence thoroughly unacceptable. The topicalisation case in (7c) would likely have given rise to the same response. I have marked the status of both (7b) and (7c) with '?*', to indicate that their acceptability is relatively distant from perfection and closer to utter woefulness but also to call into question the nature of their deviance: grammatical or pragmatic. It may be that (7b,c) are grammatically correct but pragmatically awkward. Information-structurally, topicalisation and relativisation are different from *wh*-movement in questions in that the fronted material is given/old information rather than focal material. If this is (part of) the cause of the contrast between (7a) and (7b,c) (as seems likely), it will be highly relevant for the clause-boundedness of scrambling. For scrambling is information-structurally aligned with topicalisation and relativisation and not with *wh*-movement in questions. If scrambling resists the formation of cross-clausal dependencies because of its information-structural properties, on a par with topicalisation and relativisation (both unquestionably cases of Ā-dependencies), the clause-boundedness of scrambling ceases to be an argument for the involvement of A-movement.

For object shift, it is well known that it is subject to a strict categorial restriction: only nominal categies can undergo it. Scrambling is less categorical in this regard. The fact that it can affect PPs is often interpreted as an argument against scrambling being A-movement. In an effort to discount this argument, Salzmann draws attention to locative inversion in English (as in *Down the hill rolled the baby carriage* or *On this wall hangs a portrait of the President*). But this repartee is not entirely on target. Locative inversion only affects locative PPs that serve as predicates of Themes; argument- or adjunct-PPs cannot undergo the process (**At Mary looked John*, **With a knife was sliced the salami*). But scrambling can readily target argument-PPs, and (to some extent) even adjunct-PPs can undergo scrambling, while they cannot undergo locative inversion (A-movement) to the structural subject position. Also relevant in connection with categorial restrictions is the fact (reported by Diesing) that AP predicates can scramble in Yiddish. Once again, this produces a pattern that *bona fide* A-movement cannot reproduce. Although English has things like *Most embarrassing would have been losing one's keys*, Heycock (1994, 1998) has demonstrated that such cases do not involve movement of the AP into an A-position. Even locative inversion itself arguably does not feature the physical PP in the structural subject position, although the PP *is* linked to a silent proxy in SpecTP (see Den Dikken & Næss 1997). It appears that A-movement to SpecTP really is strictly the privilege of nominal material. If we can extrapolate from this a general restriction on A-movement, it will lead us to conclude from the fact that scrambling can involve non-nominal undergoers that this argues against it being a case of A-movement. (Under 'categorial restrictions', Salzmann also includes a brief discussion of the scramblability of adjuncts (which, however, do not represent a particular category). He points out that 'the force of the scope argument remains weak, but there seems to be at least some residual evidence that adverbials can scramble' — although he adds that there is 'no consensus on the facts', a problem that broadly plagues the literature on scrambling.)

Connectivity effects (for binding and scope) are frequently advanced as a basis for determining the nature of a particular movement operation — the underlying idea here being that connectivity effects are indicative of the application of 'reconstruction' (or activation of the lower copy) at LF, which evidently will be possible only if there is a position into which to reconstruct. Here I find myself entirely in agreement with Salzmann, who concludes (after a very substantial discussion of reconstruction for binding) that 'reconstruction effects are ill-suited to disentangle the two movement types quite generally', and that 'the general binding/reconstruction pattern of German scrambling is rather puzzling'. I would prefer not to wade into this quagmire, leaving it to my readers to judge Salzmann's discussion and the source literature for themselves.

At the end of the day, Salzmann reaches the conclusion that '[s]crambling instantiates a movement type of its own' — put differently, for Salzmann scrambling probably does instantiate movement but the movement that it undergoes is *sui generis*. This conclusion is extremely undesirable, inviting the kind of response to generative syntactic analysing represented by Culicover (1999) and work in its wake. The interim conclusion that scrambling is 'a movement type of its own' really ought to be interpreted as an indictment of a generalised, integrated movement approach to all scrambling phenomena. *Some* scrambling may very well instantiate movement, and will, in all likelihood, have unambiguous Ā-properties. But all things 'scrambling' that do not fit the standard A- or Ā-mould are best analysed in ways eschewing movement. Scrambling is unlikely to be a unitary phenomenon — a conclusion also reached (as a side note embedded in his chapter on Insular Scandinavian object shift) by Jónsson, who refers to important work by Hinterhölzl (2012) and Broekhuis (2020). Object shift appears on its face to be much more uniform — although here, too, there is variation that may raise issues for the standard analysis in terms of A-movement, as we will see in the next section.

3 Reordering

Particularly germane to the question of whether object shift and scrambling involve movement or not, and if so, what kind of movement we are dealing with, is the possibility of changing the relative order of arguments in the process. Theoretically, this is a fairly straightforward matter: A-movement is not supposed to proceed across an intervening constituent in an A-position that asymmetrically c-commands the extraction site; Ā-movement is expected to be insensitive to occupants of A-positions along the movement path; and base-generation of an argument α outside a domain that contains a subject would make it difficult to interpret α as an argument of this domain. Of special significance for the question of the derivational nature of object shift and scrambling is thus the possibility of reordering of a non-subject argument and the subject: if object shift and scrambling can place a non-subject argument to the left of the subject, this may be viewed as evidence for the involvement of Ā-movement.

Remarkably, changing the linear placement a non-subject relative to the subject is something that splits the Germanic languages that have object shift and scrambling. German and Yiddish appear to allow scrambling past the subject on a reasonably regular basis (as in (8a,b), lifted from Salzmann's and Diesing's chapters; note that in (8a) *two* non-subjects are placed to the left of the subject). Swedish is apparently the only Scandinavian language in which object shift can take an object past the subject (as in (9), taken from Holmberg & Platzack 1995:156, and reproduced in Bentzen's chapter).

(8) a. dass den Hans der Maria der Peter gestern vorgestellt hat
that the.ACC Hans the.DAT Maria the.NOM Peter yesterday introduced has
'that yesterday Peter introduced Hans to Maria'

b. nekhtn hot dos bukh maks nit geleyent
yesterday has the.ACC book Max not read
'Max did not read the book yesterday'

(9) varför gör mej Helge alltid så irriterad?
why makes me Helge always so irritated
'why does Helge always make me so irritated?'

Placing a non-subject to the left of the subject is not strictly impossible in Dutch and Icelandic. But special conditions apply in these languages, suggesting that in the cases at hand we are looking at something other than garden-variety scrambling or object shift. In both Icelandic and Faroese, 'long object shift' past the subject in SpecTP is disallowed, for both pronouns and full DPs. Jónsson, bemoaning that 'syntacticians have more or less given up in their quest to establish the landing site for OS', mentions that Icelandic (but not Faroese) allows object shift to place weak pronominal objects to the left of the subject as long as the subject itself stays low and is not raised to SpecTP, as in (10) (taken from Jónsson's chapter; see Rögnvaldsson 1982:44 and Jónsson 1996:53 for discussion). Similarly, in Dutch, when the subject is not in SpecTP, scrambling can target a total of three different positions (see (11)), one of them producing an output in which the scrambled material (underscored in the examples) precedes the low subject (as in (11c)).

(10) það þekkja {hana} (örugglega) allir {hana}
there know her.ACC surely all.NOM her.ACC
'everyone knows her (for sure)'

(11) a. dat er niemand ooit daar iets over heeft geschreven
that EXPL nobody ever there anything about has written
b. dat er niemand daar ooit iets over heeft geschreven
that EXPL nobody there ever anything about has written
c. dat er daar niemand ooit iets over heeft geschreven
that EXPL there nobody ever anything about has written
all: 'that nobody has ever written anything about that'

To my ear, the word order in (11c) is only acceptable if *daar* 'there' is read contrastively whereas *daar* in (11a,b) resists a contrastive interpretation. This makes (11c) behave partially on a par with what Neeleman (1994) has called'focus scrambling', illustrated in (12), characterised by a combination of two information-structural properties: the scrambled non-subject must be read contrastively, and the subject (the constituent across which scrambling has taken place) must be focused. It is this latter condition which has earned (12) and its ilk the title 'focus scrambling' — a term often misinterpreted as saying that the scrambled constituent in pre-subject position must be focused.

(12) dat zulke boeken alleen Jan zou lezen
that such books only Jan would read
'that such books (as opposed to other, more 'mainstream' books) only Jan would read'

It may be sensible to assimilate such 'focus scrambling' to contrastive topicalisation in English: both target a position to the left of the subject, and both are possible in both root and non-root clauses and never trigger raising of the finite verb. I will set 'focus scrambling' aside here.

But I do want to linger a bit longer on the role played by the relative structural height of the subject in connection with the difference between object shift/scrambling past the subject and object shift/scrambling in the *Mittelfeld*. There certainly is no reason to think that the possibility of placing a non-subject between the complementiser and the subject in Dutch 'focus scrambling' is contingent on keeping the subject low: (11c) and (12) are both instances of 'focus scrambling'; but while in (11c) the subject is clearly not in SpecTP, in (12) it probably is. For (8) and (9), there likewise are no immediate indications that the subject in these sentences is anywhere other than in the structural subject position, SpecTP. In all of (8), (9) and (12), the subject is a proper name, a definite description not required (and not desiring) to be interpreted under existential closure lower than TP. But Salzmann is right to stress (for scrambling; the point applies to object shift as well) that the height of the subject often 'is not controlled for in the examples in the literature' — this is something that future research should endeavour to do more systematically.

For Icelandic (10), its grammaticality with the accusative object to the left of the subject (*allir*) depends not just on the low position of the subject but also on the fact that the object is a weak pronoun: with *Jónu* 'Jón.ACC' rather than *hann* to the immediate right of *þekkja*, (10) would be severely degraded. Thus, the version of (10) with 'long object shift' past the subject suddenly makes Icelandic look much more like Mainland Scandinavian, where object shift *in general* is possible only with weak pronouns. Indeed, 'long object shift' in Icelandic behaves very much like 'long object shift' in Swedish, previously illustrated in (9) — except that for Swedish the literature does not explicitly discuss where in the structure the subject is located. Jónsson mentions that '[l]ong OS in Swedish is only possible if the accusative form of the weak object pronoun is different from the nominative form'; but this morphological distinctness constraint does not in any obvious way implicate the subject's height.

What requires a great deal more attention is the question of what might be behind the intra-Germanic variation with respect to the possibility of object shift and scrambling targeting a position to the left of the nominative subject. What could this possibility be correlated with? Bentzen's chapter highlights two respects in which Swedish is different from the other Mainland Scandinavian languages: one is the possibility of object shift targeting a position to the left of the subject; the other is the fact that object shift is less obligatory in Swedish than it is elsewhere in Mainland Scandinavian. Indeed, there is at least one circumstance in which Swedish *must* refrain from shifting the position of weak accusative pronouns whereas the other Scandinavian languages have at least the right and, in the case of Danish, the obligation to shift them: Swedish is the only Scandinavian language that requires weak pronominal objects to stay to the right of particles in the verb–particle construction. (*Let*-causatives/permissives show similar variation in the placement of the causee/permissee in Scandinavian.) Could this be a factor in the distribution of 'long object shift' in Scandinavian? On its face, this might seem unlikely: being required to keep even weak pronominal objects to the right of the particle in the verb–particle construction would not immediately appear to meaningfully correlate with having the option to place weak pronominal objects to the left of the subject; the two phenomena seem to be at opposite ends of the spectrum, and, moreover, they are different in nature (an obligation *vs* an option). But what unites the two is a greater tolerance for 'peripherality' (whether on the right or on the left) of weak pronominal objects in Swedish compared to the other Scandinavian languages.

This could potentially be cashed out in a theory of syntactic dependencies in which both Move (Internal Merge) and Agree are subject to locality. On pain of a violation of minimality, A-movement ought not to proceed past an intervening constituent in an A-position. And if the particle is a head that sits between the verb and the base position of the object (see Den Dikken 1995 and references there), minimality may also constrain the establishment of an Agree relationship for accusative case between *v* and the object of a verb–particle construction past the intervening particle. Viewed from this perspective, what would make Swedish different from the other Scandinavian languages is its tolerance of such minimality violations. Put differently, Swedish syntax would, in this line of thinking, have the wherewithal to render both pre-subject placement and post-particle placement of weak pronominal objects compatible with minimality. Whether such a perspective on the exceptionality of Swedish within Scandinavian is fruitful or not will be worth investigating in future research.

The line of thinking laid out in the previous paragraph builds on the hypothesis that 'long object shift' involves A-movement of the object: only then is minimality implicated in the placement of the object to the left of the subject. So if this line of thinking should turn out to be productive, it may help solidify the A-movement approach to object shift that is standard in the literature. But if 'long object shift' is better understood as something quite different from 'regular' object shift, no minimality-based analysis will help account for its distribution, nor will its properties directly inform the analysis of 'regular' object shift.

What would the alternatives to an A-movement analysis of 'long object shift' be? Setting base-generation aside (in light of the fact that the position between the finite verb and the subject in (9) is unlikely to be a possible base-generation site for the object), we have two viable options. One possibility, definitely on the table because of the fact that (in both Swedish and Icelandic) only weak pronouns are undergoers, could mobilise cliticisation or head movement (to the finite verb in C in (9) and (10)). This approach could make Swedish out to be different from its fellow Mainland Scandinavian languages either simply in having clitic pronouns or in having a greater range of clitic hosts (incl. C and particles). Bentzen concludes from the fact that 'disyllabic pronominal objects are not banned from undergoing OS in Swedish' that shifted pronouns are

not clitics, but this conclusion is too hasty: the literature on cliticisation features numerous examples in the world's languages of disyllabic and even trisyllabic clitics. Jónsson attributes to the literature on Scandinavian a broad consensus that weak object pronouns in these languages are not clitics, but he also cites several studies which deal with them in terms of 'some kind of head movement' (Déprez 1989:239–41, Josefsson 1992, Bobaljik & Jonas 1996), which may deserve another look.

The alternative to A-movement and cliticisation would be to treat 'long object shift' as a case of Ā-movement, perhaps similar to (post-subject) scrambling in the West-Germanic OV-languages. The Ā-movement analysis of 'long object shift', as far as I can tell, makes no predictions about correlated differences between Swedish, on the one hand, and Danish and Norwegian, on the other; nor does it offer any immediate insight into the restriction of 'long object shift' to weak pronouns, even in Icelandic (whose object shift can otherwise affect full DPs). If, however, a good case could be made for 'long object shift' involving Ā-movement, the fact that it distributes differently from 'regular' object shift will likely make at least the bare minimum of a case for the latter *not* being a case of Ā-movement.

Whatever the case may be, it will be very much worth our while to try to figure out exactly what is going on in object shift past the subject, in both Icelandic and Swedish. Such cases have the potential to inform the syntax of object shift in major ways. Reordering (not just under object shift but also in scrambling and verb–particle constructions — all ideally studied in tandem) should be on the research agenda for Germanicists in the years to come.

4 The trigger question

If object shift and/or scrambling involve(s) movement, a question that naturally arises is what might drive such movement. With reference to scrambling, while Diesing writes that 'there is a tendency for "given" information to shift', Salzmann considers it 'fair to conclude that all attempts at finding a coherent trigger for scrambling and thereby establishing a direct link between syntax and semantics/information structure have failed'. The latter remark makes it clear that a lot of the literature on scrambling has been busying itself with finding an answer to the trigger question at the interface between syntax and meaning.

In connection with Scandinavian object shift, both Bentzen and Jónsson find that in Mainland Scandinavian information structure plays an important role (along with the type of antecedent for the pronoun; I will turn to this shortly). But according to Jónsson, 'pronominal OS in Icelandic is only conditioned by the lack of stress'. When we add to this statement Bentzen's dismissal of the role of prosody in Mainland Scandinavian object shift, we end up with a stark contrast between the insular and mainland varieties of Scandinavian. It seems unlikely, however, that reality is quite so categorical. For Icelandic and Faroese, no instances have been reported (to my knowledge) of focused constituents undergoing object shift — so at the very least it seems that information structure plays a role here in the sense that object shift is an 'anti-focus' device, not fundamentally different from the information-structural import of object shift in Mainland Scandinavian. And the 'challenges' that Bentzen brings up for the idea that prosody plays an important role in Mainland Scandinavian object shift may not ultimately be quite so severe. Probably both prosodic and information-structural considerations have a say in the distribution of object shift across the Scandinavian language family. For scrambling, too, it is impossible to dismiss the involvement of prosody (destressing) and information structure (givenness or 'anti-focus' — a constraint that clitic doubling has also been found to be subject to: see esp. Kallulli 2000, with particular reference to Albanian and Greek).

It is a different question, however, whether prosody or information structure (or both) could be a *trigger* for object shift and scrambling. Not only would the autonomy of syntax be seriously undermined if we allowed this to be the case, there are cogent reasons why information-structural functions should not be considered as driving forces for syntactic derivations. Topic- and focushood are discourse properties of the referents of syntactic phrases, not properties attributable to the heads of such phrases. Assigning a [topic] or [focus] feature to a phrase in syntax without this feature being able to 'percolate' up to the phrase from its head constitutes a violation of the Inclusiveness Condition. By parity of reasoning, exploiting the prosodic properties of syntactic constituents as triggers for syntactic movement would likewise be a case of putting the cart before the horse. As their name suggests, the phrasal stress rules assign stress to phrases, not to their heads. The prosodic prominence of a syntactic phrase ultimately manifest itself on (a subpart of) a head contained in that phrase, but this head is not necessarily the morphosyntactic head of the phrase; it is not the case that the morphosyntactic head of the phrase is lexically endowed with a 'prominence feature' that percolates to the phrase as a whole. Traffic between prosody and information structure, on the one hand, and syntax, on the other, goes in a direction opposite to one that would be conducive to a construal of prosodic and information-structural properties as triggers for movement in syntax.

Salzmann presents as the strongest argument against 'a direct link' between syntax and information structure and/or prosody the case of 'altruistic scrambling' (discussed in Fanselow 2003a,b; also relevant here is work by Reinhart 1995 [2006] and Szendrői 2001): cases in which scrambling takes place 'so a different constituent, e.g., the verb or the subject, can be in focus/receives the nuclear accent, but this does not imply that the scrambled XP necessarily receives a special information-structural property'. Salzmann is certainly correct in saying that such cases undermine the idea that the information-structural or prosodic properties *of the moved constituent* drive the movement at hand. This does not, however, constitute an argument against 'a direct link' between syntax and information structure and/or prosody: there can certainly be a direct link (and indeed, there arguably *is*); it just cannot be recast as a *trigger* in syntax.

With information structure and prosody off the table as potential triggers for object shift and scrambling, where does this leave us? Diesing says that Yiddish scrambling is 'primarily a phase edge phenomenon', which ties in which Heck & Himmelreich's (2017) hypothesis that scrambling and object shift are both triggered by an 'edge feature' ('relativized to pronouns' in the case of object shift). Such an approach will of course have explanatory depth only if we know with a reasonable degree of precision where the phase edges are located. As long as we do not have such reliable knowledge, it may be best to disavow the idea that movement requires a trigger (a conclusion to which Chomsky 2015 comes round as well, marking a sharp U-turn after a decade of less than productive trigger-centric minimalist syntax). Object shift and scrambling happen when they happen *(a)* because they *can* (i.e., nothing forbids their application) and *(b)* because their outputs can profitably be interpreted by the post-syntactic components of the grammar (in particular, the ones that interface with the sensori-motor system and discourse pragmatics).

5 Headedness

In the Germanic language family, object shift is found only in the Scandinavian languages, which are uniformly VO. Yiddish is the only Germanic VO language with scrambling: Afrikaans, Dutch, Frisian, German and their dialects are predominantly OV on the surface (which is not to say, of course, that their surface OV patterns could not be the product of operations performed

on an underlying VO syntax; I will return to this). Salzmann's chapter emphasises, based on the literature on German, that scrambling only happens in head-final domains: in VP and AP (on object shift and AP, see also the brief remarks in Jónsson's section 2.3.4), but not within DP and PP (assuming that what Van Riemsdijk 1978 called 'R-movement' and the process that is responsible for postpositional order with full DPs and personal pronouns are not to be equated with scrambling). Salzmann notes that while subconstituents of DP and PP *can* scramble, they can do so only as long as they leave the DP or PP in the process. These remarks, taken together, lead us to investigate the link between headedness and the distributions of object shift and scrambling.

Let me open the discussion by considering the syntax underlying the Germanic OV languages. Koster (1975) makes a strong case for Dutch being an OV language, despite the occurrence of plenty of head-initial surface strings. Inspired by Kayne's (1994) universal VO base hypothesis, however, Koster (1994) and Zwart (1997:Ch. 3) argue instead that a more efficacious analysis of the syntax of Dutch emerges from the postulation of an underlying head-initial syntax for the language. If we start out from a VP in which the verb precedes its complements, surface OV patterns are the result of leftward movement operations — some of these going to the specifier position of what Koster (1994) called the 'PredP' (essentially a receptacle for any subpart of the VP that *(a)* occurs to the left of the verb on the surface and *(b)* is not an argumental nominal) and others to the specifier of what was called AgrOP in early minimalist syntax, now 'replaced' with *v*P or (inner) AspP. The latter movement operation is conspicuously similar to Scandinavian object shift — *except* for the fact that it is *not* order-preserving: on the VO-base hypothesis, after the nominal object has moved to out of the VP, the Dutch verb is not raised to a position higher than (hence, to the left of) the landing-site of the object; if it were, movement of the object would not have an effect on word order, and therefore would not produce the desired OV surface output.

The previous paragraph on the one hand suggests that Dutch (and, by parity of reasoning, the other Germanic OV languages as well) can perform an operation equivalent to object shift and, on the other, uncouples the application of object shift from verb movement. This brings Holmberg's Generalisation sharply into focus. But the 'Dutch as a VO language' literature has not made it its duty to provide a principled answer to the question of why NP-movement of the object out of the VP into a *Mittelfeld* position must go hand in hand with verb movement to a position to the left of the moved object in Scandinavian but not in Dutch or German. This naturally makes it difficult to assess whether OV languages genuinely have what Scandinavianists call object shift, *alongside* scrambling (which is different because it is not involved in the production of OV order *per se*, but shifts material that is already before the verb, including non-nominal material, even further to the left).

Scrambling is typologically skewed towards OV syntax, occurring not just in the Germanic OV languages but also in the Turkic and East-Asian OV languages (Japanese, Korean) as well as in the Indo-Aryan languages (see, e.g., Mahajan 1990 and Bhatt & Dayal 2007 on Hindi; but see Mahajan 1997 and Simpson & Bhattacharya 2003 for an SVO perspective). Yiddish, however, is a VO language with scrambling. The closing remarks of Diesing's chapter draw attention to the Slavic languages to further downplay too strong a typological connection between scrambling and head-finality in the VP. But if there is no strict correlation between scrambling and OV syntax, perhaps it *is* true that scrambling always targets a position to the left of the base position of the scrambled element? Indo-Aryan rightward scrambling may give us pause here, as may English 'heavy NP shift' — though remnant movement approaches have been pursued for both phenomena (see Bhatt & Dayal 2007 and Kayne 1994; for more on the latter's analysis, see the next paragraph). While it may not be customary for heavy NP shift to be mentioned in

the same breath as scrambling, it has been noted that, within Germanic, there are striking distributional patterns that may lead to the conclusion that scrambling and heavy NP shift are two different sides of the same coin. Consider the following facts. *(i)* Both scrambling and heavy NP shift tend to involve nominal constituents, although PPs are possible undergoers as well. *(ii)* Scrambling goes leftward; heavy NP shift goes rightward. *(iii)* Scrambling affects relatively 'light' material; heavy NP shift affects 'heavy' material. *(iv)* Scrambling is an anti-focus device; heavy NP shift places the right-peripheral constituent in focus. Taken together, these facts may invite an assimilation of scrambling and heavy NP shift as 'mirror images' or two sides of the same coin: the shared set of undergoers falls out from such an assimilation while the differences in terms of heaviness and information-structural function could be related to the left/right distinction, thinking here of Behaghel's (1932) *Gesetz der wachsenden Glieder* and the tendency for foci to be 'saved for last' (see, e.g., Cinque 1993).

Kayne (1994) has proposed an approach to heavy NP shift according to which it is in fact a leftward movement operation, targeting a position that may be the same as the landing-site of object shift or scrambling; the fact that the shifted NP follows everything in the VP is a result of remnant movement of the VP to a position higher and farther to the left than the heavy NP. If this perspective on heavy NP shift is on the right track, it suggests that something akin to object shift or scrambling can exist in VO languages, and that the typological tendency (to the extent that it is real; recall Slavic) for scrambling languages to have OV word order is a function not of the displacement of the scrambled material itself, but of the (non-)application of movement of (a constituent containing) the verb. The amount of verbal material that is being moved leftward can then be held responsible for the weight restrictions imposed on and the information-structural signature of the displaced object: if just the verb undergoes movement around the shifted object, the object is not required to have a particular weight or informational profile; if the remnant VP moves around the shifted object, the object must be heavy (by Behaghel's law) and focal (because it is the most deeply embedded overt element on a right branch).

In closing this section on the connection between scrambling and headedness, let us return to Salzmann's claim (for German) that scrambling only happens in head-final domains — and, more specifically, that there is no scrambling within DP and PP. For the adpositional domain, this claim may seem to be contradicted by data discussed recently in Trotzke & Haegeman (2022). The Dutch example in (12a) features the R-pronoun *daar* (serving as the Ground argument of *naast* 'next to') at the left edge of what appears to be a PP-domain, separated from P by discourse particles (*dan* and *dus*) and the aspectual modifier *vlak* 'right'. The entire string from *daar* to *naast* has undergone topicalisation into the left periphery of the clause. Since Dutch is a strict Verb Second language, we deduce from this that *daar dan dus vlak naast* constitutes a single constituent. Inside this large constituent, *daar* appears to have scrambled (optionally: *daar* can also appear to the immediate left of *naast*, as in (12c); and it is also possible to place *daar* between the discourse particles and the aspectual modifier, as in (12b)).

(12) a. ... en [*daar* dan dus vlak naast] woont mijn tante
and there then thus right next.to lives my aunt
b. ... en [dan dus *daar* vlak naast] woont mijn tante
and then thus there right next.to lives my aunt
c. ... en [dan dus vlak *daar* naast] woont mijn tante
and then thus right there next.to lives my aunt
all: '... and so my aunt lives right next to that, then'

Two remarks are in order in connection with these data and their implications for the claim that scrambling is possible in head-final domains and not in PPs. First, all the examples in (12) are, of course, head-final on the surface: the P-head *naast* is the last element in the topicalised string. Second, the fact that *dan* and *dus* surface inside the topicalised constituent may indicate (in light of the fact that discourse particles belong to clauses: it is, after all, clauses out of which discourses are built) that this constituent is in fact much larger than a PP. If the bracketed constituents in (12) are (reduced) clauses of sorts, they do not directly bear on Salzmann's claim.

Turning next to the nominal domain, what does the impossibility of scrambling within its confines (assuming that Salzmann is right that this is indeed impossible, at least in German) imply for scrambling and/or the syntax of the nominal phrase? Scrambling is an operation which changes the order of typically argumental material relative to adverbial modifiers and discourse particles, and which causes the scrambled material to be interpreted as a topic. While (12) showed that adverbial modifiers and discourse particles can occur in what appears to be the PP-domain, the complex noun phrase cannot feature such material between the outer determiner and the head noun (setting aside nominalisations that arguably contain a certain amount of verbal structure, which muddy the waters in ways that are not helpful in the context at hand): Dutch **de dan dus meteen conclusie* 'the then thus right conclusion' is woeful. Bearing in mind my second remark below (12), this is indicative of the fact that (nominalisations aside) the complex noun phrase is not, and cannot harbour, a clausal structure. In concert with this, it is also highly unlikely that the nominal domain can include topics, in the sense of 'what the sentence is about': nominal phrases are not clauses, and (nominalisations aside) they do not include clauses either. These things combined lead to the conclusion that it should indeed be impossible for scrambling to obtain inside the complex noun phrase — but this is true entirely regardless of headedness.

By way of a summary of this section, it appears fair to say that headedness does not appear to be a factor that strongly and meaningfully interacts with scrambling (or object shift).

6 Special cases

In this section, I will put the spotlight on some special cases of object shift and scrambling emerging from the literature, as summarised in the four contributions synthesised here. The selection of these special cases is based on my own assessment of what is 'special'. In each of the following subsections, it will be shown how the cases at hand deviate from the general patterns that we find for object shift and scrambling.

6.1 Propositional anaphors and type pronouns

A welcome aspect of Bentzen's chapter is that it puts a special spotlight on non-application of object shift of neuter *det* in cases in which its antecedent is non-nominal (e.g., a VP or clause, as in (13B)) or a type DP (see (14B); both examples are from Norwegian). (Jónsson's chapter also refers to such cases, but only to make it explicit that they exhibit no special behaviour in Icelandic or Faroese — unsurprisingly, if the suggestion made later in this section is on target.)

(13) A: har hun gått hjem?
has she gone home
'did she go home?'
B: jeg tror {*det} ikke {det}
I think it not it
'I don't think so'

(14) A: hva med fisk til middag?
what with fish.MASC to dinner
'how about fish for dinner?'
B: nei, Per spiser {#det} ikke {det}
no Per eats it.NEUT not it.NEUT
'no, Per doesn't eat that'

What Bentzen, in section 6 of her chapter, refers to as 'non-referential pronominal objects' are tokens of neuter *det* that, while arguably referential, do not refer to an entity (of type ⟨e⟩) but to an eventuality or type instead. What makes B's utterances in (13) and (14) special is that object shift does not (like to) take place in them (although there are circumstances in which even this 'special *det*' does shift, as Bentzen discusses briefly at the end of her section 3).

The key question that these examples raise is how the nature of the antecedent of *det* could influence its susceptibility to OS. This question is perhaps particularly pressing in connection with the following observation made by Bentzen: 'when the antecedent of the pronominal object *det* constitutes an aboutness shift topic in the discourse, the pronominal object typically remains in situ. In contrast, when the antecedent of the pronominal object *det* constitutes a continuing topic in the discourse, the pronominal object tends to undergo OS.' Bentzen (see also Bentzen & Anderssen 2019) draws a parallel with German *das* 'it/that', which can be developed further, along the following lines. German *das* is ambiguous between a pronoun and an independent (i.e., non-attributive) demonstrative. This observation may lead to the conclusion that the connection between object shift of *det* and the information-structural status of its antecedent is only indirect. Like German *das*, the neuter proform *det* is formally ambiguous between a pronoun and an independent demonstrative. Only the former is expected to undergo object shift: object shift is restricted, in Mainland Scandinavian, to pronouns. Jónsson's observation that in Icelandic and Faroese, (13) and (14) are no different from garden-variety object shift contexts fits in with this: in the Insular Scandinavian languages, object shift is not confined to pronouns.

Pronouns take the referent of a constituent of a sentence in the preceding discourse as their antecedent, and that is precisely what *det* does not do in (13) and (14): the antecedent of *det* in (13) is the *entire* proposition uttered by speaker A (not a constituent of it), and the referent of *det* in (14) is a type of food, not a tangible token (as in (14A)). For the purpose of making reference to a preceding proposition or a type, a regular pronoun would not be suitable. Using a demonstrative is fine but, in the Mainland Scandinavian languages, is incompatible with object shift. From this, the ban on object shift in (13B) falls out directly; that (14B) is awkward with object shift can be understood as the pragmatic effect of (mis)using a pronoun to refer to a type instead of a token (cf. the fact that in English, to the question *How about fish for dinner?* the reply #*I don't eat it* is less natural than *I don't eat that* or *I don't eat the stuff*; see also Gundel *et al*. 2003 on the distribution of *it* and *that* in cases of propositional antecedents).

It is interesting in this connection to look into what happens to proforms that are linked to a propositional *post*cedent (rather than, as in the case of (13), to a propositional *ante*cedent) — cases of clausal prolepsis in which the proform is coindexed with a subordinate clause (as in *I hate*/*like it that he did this* or *I find it strange that he did this*). The distribution of object shift in cases of clausal prolepsis appears not to have been investigated before; the remarks that follow (based on empirical material and discussion provided by Kristine Bentzen, p.c., November 2023) are a first foray into this. In Norwegian, object shift of a *det* associated with a subordinate clause further downstream is optional in factive (15) while it is impossible in (16). (On the role of factivity in object shift of non-proleptic *det*, see already Anderssen & Bentzen 2012.)

(15) a. jeg liker {det} ikke {det} at du skal bo på hotell
I like it not it that you shall stay at hotel
'I don't like it that you'll be staying at a hotel'
b. jeg forstår {det} ikke {det} at dette kunne gå så galt
I understand it not it that this could go so wrong
'I don't understand that this could go so wrong'

(16) a. hun fortalte meg {??det} ikke {det} at hun skulle få ny jobb
she told me it not it that she should get new job
'she didn't tell me that she was getting a new job'
b. de trodde {??det} ikke {det} at nissen var ekte
they believed it not it that Santa was real
'they didn't believe that Santa was real'

Bentzen (p.c.) draws a connection between these data and the observation (see Schwabe *et al.* 2016, from whose work the examples below are taken, and further references therein) that in German, the neuter pronoun *es* can be proleptic (a 'placeholder' in Schwabe *et al.*'s terms), cataphorically linked to a subordinate clause, in combination with factive *bedauern* 'regret' (as in (17)) but not with *behaupten* 'claim': while (18) is fine in a context in which *es* is anaphoric to an antecedent proposition that is part of the common ground, it is impossible to use this in a situation in which the propositional content of the subordinate clause is discourse-new.

(17) Max bedauert es, dass Lea krank ist
Max regrets it that Lea ill is
a. CONTEXT: *Lea is ill*
b. CONTEXT: *what's new?*

(18) Max behauptet es, dass Lea krank ist
Max claims it that Lea ill is
a. CONTEXT: *Lea is ill*
b. #CONTEXT: *what's new?*

The ill-formedness of *es* in context (18b) and of (16) with object shift fits in with Bentzen & Anderssen's (2019) observation that precisely where German *es* cannot be used, Norwegian *det* resists object shift. This can be understood in light of the fact, previously highlighted in the discussion of (13) and (14) above, that *bona fide* pronouns are anaphoric to something established as a topic in the preceding discourse. The Norwegian pronoun *det* cannot be construed proleptically with a non-factive verb's subordinate clause (whose propositional content does not intrinsically represent shared knowledge). In such cases, recourse must be had instead to non-pronominal *det*, which, not being a demonstrative, does not undergo object shift.

The discussion of clausal prolepsis (the cataphoric relationship between a proform and a propositional associate) confirms the distinction (parallel to *es~das* in German and *it~that* in English) between the anaphoric pronoun *det* and the demonstrative *det*: the former is an object shifter; the latter is not. In cases in which object shift is apparently optional with *det* (such as factive (15)), both pronominal *det* and demonstrative *det* are felicitous; wherever *det* qua anaphoric pronoun is not appropriate, object shift is ruled out. The important thing to take away from this discussion is that not every instance of *det* is a pronoun — but object shift *as such* remains categorical with weak pronouns (incl. truly pronominal tokens of *det*) in Mainland Scandinavian.

6.2 Negative shift

Diesing's chapter briefly mentions negative concord in Yiddish, which can give rise to displacement of the negative QP to a position to the left of negation, as in (19), where *keyn bisl gelt* 'no little money' has shifted around *nit* 'not'. This shifting of negative QPs to the left of negation reminds us of the situation in West Flemish (Haegeman 1997), where such shifting is obligatory if a negative concord reading is intended (as in (20a)): though (20b) is grammatical, it gives rise to a double-negation interpretation. (Interestingly, extraposition of the PP, as in (20c), also yields only a double-negation reading. I will set this aside here but it is clearly relevant in connection with the discussion in section 5.)

(19) er hot dokh gor keyn bisl gelt nit
he has PRT PRT no little money not
'he has absolutely no money'

(20) a. da Valère me niemand nie geklaapt (en-)eet
that Valère with nobody not talked NEG has
'that Valère didn't talk to anybody'
b. da Valère nie me niemand geklaapt (en-)ee
that Valère not with nobody talked NEG has
'that Valère didn't talk to nobody'
c. da Valère nie geklaapt (en-)ee me niemand
that Valère not talked NEG has with nobody
'that Valère didn't talk to nobody'

Haegeman (1997) does not analyse (20a) as a common or garden case of scrambling. Rather, she takes it to involve movement of the PP containing the negative QP into SpecNegP. Since the range of constituents to which such movement applies is broadly the same as the range of candidates for scrambling, using the same term for 'ordinary' scrambling and the leftward displacement of negative QPs, and treating the latter as a special case of scrambling, may be justifiable. But it is important to bear in mind that *me niemand* 'with nobody' evidently does not have the information-structural profile of a typical scrambled phrase: *me niemand* is not, and cannot be, a topic.

Diesing contrasts the leftward displacement of negative QPs in Yiddish with what is referred to as 'negative shift', found all across the Scandinavian language area (though in Mainland Scandinavian it tends to be stylistically marked, characteristic of formal styles; see Christensen 1986, Faarlund *et al.* 1997, Svenonius 2000 on Norwegian, Holmes & Hinchliffe 2003 on Swedish, Christensen 2005 on Danish, and Engels 2008 for an overview of Scandinavian 'negative shift'), and also active in the Romance languages (as in French *je n'ai rien dit* 'I NEG have nothing said, i.e., I didn't say anything'; see Kayne 1975 for discussion):

(21) ég han engan séþ (Icelandic; Rögnvaldsson 1987:37)
I have nobody seen
'I haven't seen anybody'

(22) han havde ingenting sagt (Danish; Engels 2008)
he had nothing said
'he hadn't said anything'

Neither of the chapters on Scandinavian mention this phenomenon. This is justified by the fact that 'negative shift' has properties that set it squarely apart from object shift. Salient among these properties are the fact that it can affect non-pronominal objects (which, in Mainland Scandinavian, *bona fide* object shift never can), its ability to violate Holmberg's Generalisation (taking place in compound-tense constructions), its capacity to alter the relative order of direct and indirect objects (systematically impossible under object shift; on object shift in ditransitives, see section 6.4), and, at least in some varieties of Scandinavian, the fact that it can strand a preposition (*only* in compound-tense constructions, peculiarly). These properties are illustrated in (23):

(23) a. jeg har ingen bøger lånt børnene (Danish; Engels 2008)
I have no books lent children.the
'I haven't lent the children any books'

b. ?jeg har ingen peget på (Aarhus Danish; Engels 2008)
I have nobody pointed at
'I haven't pointed at anyone'

There is ample reason, therefore, not to want to assimilate 'negative shift' to object shift. But the fact that, like both object shift and scrambling, it takes a VP-internal constituent and places it outside VP, to its left, makes 'negative shift' a member of the family of reordering phenomena in the Germanic *Mittelfeld*. For this reason, it deserves a mention in this handbook.

6.3 Object shift of *der*/*þar* 'there'

Both Bentzen and Jónsson make special mention of the equivalent of the English locative proform *there* — Bentzen with reference to Danish *der*, and Jónsson for Icelandic *þar*. The thing to note about these two forms is that they undergo object shift, obligatorily so in the case of unstressed Danish *der*. (Unfortunately, Bentzen illustrates this only with a single example, based on Vikner 2006:422, featuring the verb *bor* 'live', which *der* serves, rather uncharacteristically, as a subcategorised complement. But from Jónsson's examples it is clear that leftward shifting of the equivalent of *there* in Icelandic is not lexically restricted.) Important in connection with these cases is that, unlike the 'negative shift' examples discussed in the previous subsection, they respect Holmberg's Generalisation (as Jónsson is right to stress). This strongly suggests that leftward shift of *der* and *þar* represents object shift.

Does the application of object shift to Danish *der* and Icelandic *þar* require an extension of the definition of the possible undergoers of object shift? The answer depends on how one analyses *there* and its equivalents. These are proforms for spatial PPs. As Den Dikken & Dékány (to appear) point out, *there* (and its proximal counterpart, whose behaviour regarding object shift has not been brought to light for any Scandinavian language, to my knowledge) can be treated either as proforms for spatial (extended) PPs (i.e., as pro-PPs) or as proforms for the complements of spatial Ps (as pronominals). The syntax of spatial *there* must inevitably involve a P, and this P must take a nominal complement; but whether *there* is a proform for the entire PP or just for the nominal in P's complement may be a matter on which languages vary. If Danish and Icelandic can treat *der* and *þar* as pronominal elements, they may naturally be expected to undergo object shift. The fact that in that case they will, in the process, need to strand the silent P by which they are selected should then be squared with the fact that object shift otherwise resists P-stranding — probably with an appeal to the silence of the P introducing the proform. The fact that the other Scandinavian languages resist object shift of their cognates of *there* can be squared with

the hypothesis just presented if, in these languages, either the proform cannot strand the (silent) P by which it is selected or, more likely, the locative proform structurally represents an entire PP rather than the DP-complement of a silent P.

What seems to be pointing towards the correctness of an appeal to a categorial difference between Danish *der* and its Norwegian and Swedish mates is the well-known fact that Danish can use *der* as an expletive with a nominal associate in existential constructions whereas Norwegian and Swedish both use only *det* 'it' for this purpose. And if we cast our net a bit wider to include Dutch as well, it will be interesting to note that its proform *er* is used both as an expletive in existentials (like Danish *der*) and as the proform for the nominal complement of P (*onder de tafel* 'under the table' ~ *eronder* 'there.under'), the latter illustrating the (in)famous incarnation of *er* as an 'R-pronoun' (Van Riemsdijk 1978). The fact that *er* is a perfect candidate for undergoing scrambling is not quite so revealing because scrambling is not strictly categorially confined to nominal material. But object shift *is*; so the fact that Danish *der* and Icelandic *þar* participate in object shift strongly suggests that in these languages (but apparently not in other Scandinavian varieties) the locative proform is nominal in category.

6.4 Double object shift/scrambling

Double object constructions (i.e., ditransitive constructions with two nominal objects, as distinct from their alternates in which the goal argument is introduced by a preposition) are an intricate syntactic microcosm in many respects — and object shift and scrambling certainly do not want to be left behind when it comes to the specialness of double objects.

In his discussion of German scrambling, Salzmann singles double object constructions out for their behaviour in the realm of anaphoric dependencies ('binding'). The empirical side of this puzzle is already very complex, with unstable judgements muddying the waters in combination with Salzmann's welcome caveat about connectivity effects as a diagnostic for movement. At the analytical level, for those Germanic languages that have a productive case difference between the two objects (with dative case typically reserved for the indirect object), difficult questions surround even such a basic issue as settling on the base pattern for alternations between '$V–NP_{Goal:DAT}–NP_{Theme:ACC}$' and '$V–NP_{Goal:DAT}–NP_{Theme:ACC}$': the dative could be assimilated to the prepositionless indirect object in English '$V–NP_{Goal}–NP_{Theme}$' constructions or, on the hypothesis that dative case serves as a licenser of a silent P, to the PP in the English '$V–NP_{Theme}–P–NP_{Goal}$' construction. For the case-rich Germanic languages (German, Faroese and Icelandic), ditransitives should, from this perspective, be handled with special care. (A further complication is that in Germanic ditransitives with an accusative object and a dative object, it is not invariably the goal that is assigned dative case: thus, in Jónsson's example (22), it is the theme that has dative case while the adversely affected indirect object has accusative case.)

Yiddish double object constructions, in the words of the opening statement of Diesing's section 2.2, 'allow a variety of possibilities for leftward object movement, with the order of the shifted elements seemingly unconstrained by minimality'. What this statement is meant to convey is that there is a great freedom of word order in Yiddish double object constructions: both objects can be to the right of the verb, with the indirect object preceding the direct object, or the indirect object can scramble by itself, or both objects can scramble with an IO–DO output, or both objects can scramble producing an output DO–IO order, or the direct object can scramble by itself, again ending up before the IO. Further amplifying the bonanza of ordering options, Yiddish can also 'short scramble' the indirect object to a position between the negative particle and the verb — but in such cases, the scrambled object must be read contrastively (see also section 6.5, below,

on Yiddish scrambling and contrast). Diesing shows that it is impossible to 'short scramble' both objects (although she adds that 'a small number of corpus examples of this type' have been attested; what might make these attested examples allow what Diesing's consultants reject is not clarified), but she does not indicate whether the direct object can be scrambled in between the negation and the verb by itself, leaving the indirect object in postverbal position. The picture emerging from her examples in (13) and (14) is thus not fully complete. (Diesing adds much later in her chapter that 'Louw (2012) shows that in Afrikaans ... certain double object constructions allow short scrambling, but only in embedded V2 contexts'. If Afrikaans 'short scrambling' in double object constructions is indeed contingent specifically on *embedded* V2, this is a highly noteworthy restriction that should inform the analysis of 'eV2'.) A further limitation of Diesing's presentation of Yiddish double object scrambling is that her examples all involve an animacy contrast between the two objects (as is typical: indirect objects are overwhelmingly animate while direct objects tend to be inanimate). For such cases, there can be little doubt which noun phrase represents the goal and which the theme. The scrambling possibilities of double object constructions in which both objects are animate (as in the Yiddish equivalents of *I introduced Mary to Bill* and *I showed Mary Bill*) would be worth adding into the mix.

While Yiddish apparently allows scrambling in double object constructions to produce surface orders different from the typical IO–DO pattern, Jónsson makes it clear that in Icelandic, for verbs that disallow inversion of the IO–DO order ('object inversion'), object shift of the direct object past the indirect object is never allowed. The direct object can nonetheless undergo object shift by itself provided that the indirect object is 'moved out of the way, e.g. by *wh*-movement'. Faroese lacks 'object inversion', and is very much like Mainland Scandinavian in the syntax of its double object constructions.

In the literature on the Mainland Scandinavian languages, the behaviour of double object constructions under object shift has produced a flurry of analytical discussion, especially in the wake of Vikner (1990), who put the object shift patterns of double object constructions squarely on the map. It is not difficult to lay out the problems that 'double object shift' poses; but solving these problems is quite another matter — one which I will not be in a position to provide a definitive solution for here. I will make a few general remarks in the following paragraphs, which I hope will be of some guidance to future investigations.

Imagine first that 'double object shift' involves shifting the two objects individually, one by one. The central explananda for such an approach are ensuring compliance with minimality and preservation of the objects' relative order. Chomsky's (1995:Chapter 3) analysis of A-movement of the object out of the *v*/VP, couched in minimality and 'equidistance', derived (a simple version of) Holmberg's Generalisation and, importantly, it also guaranteed that no instance of A-movement could traverse more than one intervening A-position in the process: no single application of head movement could render more than two specifier positions equidistant. This makes A-movement of the lower object of a double object construction out of the *v*P impossible — as is apparently confirmed by the fact that with Icelandic non-'object inversion' verbs, the DO cannot shift past the IO. The possibility of 'double object shift' then becomes the explanandum on the equidistance approach. Throwing out equidistance does not make the minimality problem disappear: if double object shift involves movement of each object individually, then any attempt to take the direct object (the lower of the two objects) out of the VP in one fell swoop would need to raise it past both the indirect object and the base position of the subject; and any subsequent attempts to take the indirect object out of the VP past the base position of the subject and the landing-site of the shifted direct object, and the subject to SpecTP past the landing-sites of both shifted objects, will incur the same 'double jeopardy' from the perspective of minimality.

In this light, it may be to our advantage to consider an alternative outlook on double object shift — one that Vikner (1990) already experimented with. Imagine that the shifting of both objects, with preservation of their IO–DO order, is a special case of 'pied piping': movement of a constituent containing the two objects together. This constituent could be a non-verbal small clause; alternatively, it could be the beheaded lower VP of Larson's (1988) syntax of double object constructions. Either way, what needs to be ensured is that the constituent involved in double object shift is not a candidate for fronting to the pre-finite position in root clauses: if this constituent were allowed to move into the high left periphery, the Scandinavian languages would be expected to readily produce 'Verb Third' patterns in double object constructions, an expectation which is not fulfilled. (Müller 1998 reports that German does produce such patterns, citing cases of the type [*Kindern Bonbons*] *gibt man besser nicht* 'children.DAT sweets(ACC) gives one better not, i.e., it is better not to give candies to children'; see Müller 2004, Wurmbrand 2004 and Bildhauer & Cook 2010 for constraints on this.) An analysis of the shifting of both objects in terms of movement of a single constituent containing them can prevent itself from making the wrong predictions about fronting to the left of the finite verb in root clauses by capitalising on the nature of the head of the constituent containing the two objects. A Larsonian approach would make this head out to be the trace (or silent copy) of the verb, turning 'double object topicalisation' into 'beheaded' VP topicalisation, known to be problematic (with the possible exception of German and, judging from Arano 2017, Japanese as well). A small-clause approach would postulate some silent functional head as the mediator of the relationship between the two objects, and failure to license this silent functional head could then be blamed for the fact that the small clause cannot be fronted into the left periphery.

In a discussion of the facts of 'double object scrambling' in Dutch (which closely resembles the facts of double object shift in Scandinavian regarding order preservation and the ban on 'double object topicalisation'), Den Dikken & Mulder (1991) argue against the idea that movement of a constituent containing the two objects conjointly is involved. Their argument is based on the facts of parasitic gap licensing (revisited for German in Heck & Himmelreich 2017). Unfortunately, the licensing of parasitic gaps by scrambling is fraught with empirical and analytical problems, as Salzmann's chapter amply documents. It is unclear that the extra gaps licensed under scrambling are genuine parasitic gaps or rather what Postal (1994) has called 'pseudo-parasitic gaps'. If one wants to use the licensing of parasitic(-like) gaps as an argument in one's analysis of scrambling, one needs to do a lot of groundwork to make sure there is no confound in (the interpretation of) the data. But even though the key facts advanced by Den Dikken & Mulder (1991) as support for their analysis of double object scrambling may not be the optimal basis on which to draw analytical conclusions, their analysis *per se* is worth a closer look.

The crux of the analysis of double object scrambling advanced in Den Dikken & Mulder (1991) is the idea that when both objects are scrambled out of the VP, the derivation proceeds on the basis of the syntax of a prepositional dative construction, hence starts out with the direct object higher than and preceding the indirect object. This syntax cannot surface as is: Dutch does not have the morphological wherewithal to license *in situ* the silent P that introduces the indirect object. But the idea is that when the null-headed PP is scrambled out of the VP, $P_{\varnothing}$ can find a licenser. Starting out from 'AdvP*–Theme–$P_{\varnothing}$–Goal–V', the surface output '$P_{\varnothing}$–Goal–Theme–AdvP*–V' can be derived by performing two movement operations observing the Path Containment Condition (Pesetsky 1982): the scrambling operation affecting the Theme must be wholly contained within the scrambling operation affecting the null-headed dative PP containing the Goal. More recent work (see esp. Den Dikken 2018a) has capitalised on path containment in connection with multiple like-minded dependencies as well.

Whether this is the right solution for the problem of double object scrambling, and if so, whether it carries over to double object shift, are questions which I cannot answer at this time. A renewed interest in the syntax of object shift and scrambling in double object constructions, making a concerted effort to fix the problems in extant analyses, will be welcome.

6.5 Predicate scrambling

If Den Dikken & Mulder (1991) are right that double object scrambling in Dutch involves the displacement of a (null-headed) dative PP including the indirect object, then (in light of the arguments advanced in Den Dikken 1995 to the effect that dative PPs are predicates) double object scrambling is an instance of *predicate* scrambling. Diesing's chapter contains some cases of predicate scrambling in Yiddish: (24) (involving a semi-copular construction) and (25a,b) (exemplifying resultative constructions; note that regardless of whether the secondary predicate lands before or after the adverbial modifier, it must be interpreted contrastively). (Section 3 of Diesing's chapter contains discussion of the interactions between scrambling and predicate fronting; I will set this aside here.)

(24) er iz nit *groyz* gevaksn
he is not tall grown
'he hasn't grown TALL (but FAT)'

(25) a. mir hobn dos hoyz nekhtn *af royt* gefarbt
we have the house yesterday on red painted
b. mir hobn *af royt* nekhtn gefarbt dos hoyz
we have on red yesterday painted the house
both: 'we painted the house RED (not BLUE) yesterday'

Whether the leftward shift of the italicised predicates in (24) and (25) is a case of scrambling in the familiar sense of the term (in the Germanicist literature) is unclear. The fact that leftward shift affects predicates here is not *per se* a reason not to treat these examples as instances of scrambling or A-movement: as we have seen, scrambling is not incompatible with predicates as such, and A-movement does occasionally target predicates. But the obligatory contrastivity of the shifted material makes these examples quite different from garden-variety cases of scrambling. And if Diesing is right that the italicised constituents are contrastive *foci* (rather than contrastive topics), this makes it even less likely that scrambling is involved: scrambling is generally an anti-focusing device. In her treatment of the examples in (24) and (25), Diesing postulates a FocP immediately outside VP, seeking a parallel between Yiddish and Hungarian, which is known to place its contrastive foci immediately before the finite verb. However, (25b), where *af royt* appears farther to the left than this immediately VP-external FocP, is not in line with this: from the syntax of Hungarian it is clear that foci do not have the licence to move leftward from the position in which they are marked as focal.

The analysis of (25b) must almost certainly involve some sort of displacement of the secondary predicate: there is little chance of analysing it in terms of base-generation. But for (25a), an account is conceivable wherein it reflects the base order of the secondary predicate and the verb — if we start out from a head-final VP. The unmarked linear order (with the verb spelled out before both the object and the secondary predicate: *Mir hobn nekhtn gefarbt dos hoyz af royt*) would then be the product of raising the verb leftward (probably to *v*) around its dependents. Failure to raise the verb would, in Yiddish (predominantly head-initial on the surface), result in

a marked output, one in which the VP-internal material around which V has *not* raised is read contrastively. An analysis of Yiddish which postulates an underlyingly head-final VP (see Den Besten & Moed van Walraven 1986, Vikner 1994) would align Yiddish with the other Germanic scrambling languages, for which Haider (2014) has argued cogently for such a base syntax.

6.6 When leftward shift is difficult or impossible

6.6.1 Indefinite pronouns

In the discussion of 'negative shift' in section 6.2, we saw that negative pronouns can be displaced, in all the Scandinavian languages, to a position immediately preceding negation. It was pointed out there that in all likelihood this is not an instance of object shift. That negative pronouns do not undergo object shift is unsurprising if they are not weak pronouns, i.e., nominal constituents of a reduced size (see Cardinaletti & Starke 1999, Déchaine & Wiltschko 2002), but phrasal constituents of a considerably larger size.

The same line of thinking extends to 'indefinite pronouns' (i.e., expressions such as Danish *en* 'one' and *noen* 'something'; Jónsson observes that Icelandic lacks an indefinite pronoun like Danish *en*). The fact that, as Bentzen points out, such elements cannot undergo object shift in the Mainland Scandinavian languages (where object shift is restricted to weak pronouns) can be understood if they are larger in size than the maximum that object shift can apply to.

This brings sharply into focus the size restriction imposed on object shift. One might think that the fact that object shift only targets weak, unstressed pronouns is a strictly phonological matter, having to do with prosodic (non-)prominence. But although *en* 'one' is prosodically no more prominent than *den* 'it.MASC', the latter undergoes object shift while *en* does not. The key to this difference lies in syntax, not prosody: *den* can define a syntactic structure that is small enough to be able to serve as input to object shift; *en* is inherently too large. This is not the place and time for me to provide an explanation for the size restriction on object shift, or to delve in detail into the structural size of pronominal elements. But it is useful, at any rate, to be able to point explicitly and unequivocally to the syntax as the culprit in this connection.

6.6.2 Wh-*expressions*

As an immediate follow-up to the discussion of indefinite pronouns, I would like to include a remark on *wh*-pronouns and the question of whether they can undergo object shift and scrambling. This can be investigated in the context of multiple *wh*-questions, which in Germanic always include at least one *wh*-pronoun that is not being *wh*-moved to SpecCP (cf. *Who gave what to whom?*). I am unaware of any discussion of object shift of *wh*-pronouns in multiple *wh*-questions in the literature on Scandinavian, and the two contributions to this volume on object shift do not report on this matter. For German, Müller & Sternefeld (1994) claim that *wh*-words cannot scramble, but Wiltschko (1997) and Sauerland (1999) argue that *wh*-elements can be scrambled in German as long as they are interpreted as D(iscourse)-linked (in the sense of Pesetsky 1987). Dutch confirms this latter perspective. I will briefly elaborate on this in the next paragraph.

Dutch *in situ wh*-pronouns in multiple *wh*-questions in principle have the licence to be displaced to the left, past adverbial material — but an interesting contrast emerges here between double and triple *wh*-questions: while the triple *wh*-question in (26a) is fine with scrambling of *wat* 'what', the double *wh*-question in (26b) is much more natural with *wat* to the right of *gisteren* 'yesterday' than when *wat* is scrambled (in which case an echo reading is imposed).

(26) a. *wie* heeft {*wat*} gisteren {*wat*} aan *wie* gegeven?
who has what yesterday what to who given
'who gave what to whom yesterday?'
b. *wie* heeft {??*wat*} gisteren {*wat*} gekocht?
who has what yesterday what bought
'who bought what yesterday?'

This contrast is not difficult to understand. In a double *wh*-question, the *in situ wh*-pronoun is focused and stressed; in a triple *wh*-question, it is usually the last *wh* in the string that gets focused whereas the one in the middle can be prosodically non-prominent and serve as the topic in the corresponding answer: *As for books, Bill gave one to Bella, Bob gave one to Bubba, ...; and as for flowers, Paul gave some to Paula, Pete gave some to Petra, ...* Indeed, when *wat* is scrambled past *gisteren* 'yesterday' in a triple *wh*-question, the answer singles out the value for *wat* for the topic function, as expected in light of the general signature of leftward shift in the Germanic languages: it targets unstressed, non-focal material.

If *wh*-pronouns are candidates for object shift in the first place (a big 'if' in view of the fact that, as we saw in section 6.6.1, indefinite pronouns cannot be shifted in Scandinavian), one would expect Scandinavian object shift to pattern like scrambling with respect to *wh*-pronouns.

6.6.3 Possessive pronouns

Bentzen points out that possessive pronouns do not undergo object shift, as (27) illustrates for Norwegian.

(27) jeg fant {**min*} ikke {*min*}
I found mine not mine
'I didn't find mine'

The examples given by Bentzen in this connection arguably involve headless possessive DPs: [*min* $N_{\varnothing}$]. In Dutch, the equivalent of English *mine* or Norwegian *min* obligatorily features a definite article to the left of the possessive pronoun, plus schwa-inflection (arguably licensing the silent N) on the pronoun: *de mijn-e* 'the mine-ə:INFL'. This is reflective of a full-DP structure for independently used possessive pronouns.

If indeed such possessive pronouns are enveloped in a full DP, the fact that they do not undergo object shift in Mainland Scandinavian is unsurprising: full DPs are ineligible for object shift in these languages. But since the containing DP is discourse-anaphoric, it would be a natural candidate for undergoing object shift in the Insular Scandinavian languages (on which I do not have the relevant data) or scrambling in Dutch and German. For Dutch, I can confirm that *de mijne* 'mine' is an excellent scrambler: in (28), the headless possessive DP occurs to the left of *helaas* 'unfortunately' and *niet* 'not'.

(28) hij had zijn laptop meegebracht, maar ik had de mijne helaas niet bij me
he had his laptop with.brought but I had the mine unfortunately not by me
'he had brought his laptop, but unfortunately I didn't have mine with me'

6.6.4 Absence of a main verb

An interesting fact that Bentzen draws attention to, based on two corpus examples, one from Danish (see (29)) and one from Norwegian (given in (30)), is that in 'modal contexts where the main verb is left out' (as Bentzen puts it), a weak object pronoun does not undergo object shift:

(29) skal vi synge den der med tommelfinger hvor er du?
shall we sing that there with thumb where are you
Jens. Kan du ikke den?
Jens can you not it
'Shall we sing "Thumb, where are you"? Jens. Don't you know it?'

(30) ja men eg kan ikkje den aleina
yes but I can not it alone
'yes, but I don't know it alone' (alternatively: 'yes, but I can't sing it alone')

If we take seriously the idea that 'the main verb is left out' from these examples, a simple perspective opens up on their non-application of object shift. Assume that there is (and probably must be) a main verb syntactically represented in (29) and (30), so that these sentences become bi-verbal: *kan* + $V_{\varnothing}$. Then, Holmberg's Generalisation directly accommodates the absence of object shift here: the silent lexical verb has not left the VP because it is not finite; the minimum condition on object shift fails to be met, and hence the weak object pronoun stays *in situ*.

That modal auxiliaries can license silent lexical verbs in their complement has been argued for Dutch and Swiss German (see e.g. Van Riemsdijk 2002). Larson *et al.*'s (2018) analysis of intensional transitives likewise postulates a silent verb in their syntax (representing a sentence like *I want a cookie* as *I want to* HAVE *a cookie*).

Note that for the silent verb hypothesis to have its desired effect for the examples in (29) and (30), it is imporant that this silent verb does not incorporate into the modal in syntax. If it did, the circumstances required for object shift would re-emerge: V would leave the VP, rendering object shift legitimate. Thus, (29) and (30) may tell us that a silent lexical verb embedded under a modal is not subject to a licensing restriction that forces it to move.

7 Concluding remarks

7.1 Object shift

In all likelihood, all Germanic languages (incl. English and the West-Germanic OV-languages, and probably many non-Germanic languages as well) have object shift, understood to designate placement of ordinarily VP-internal material outside of or on the edge of the verbal domain. Object shift consistently targets nominal elements (obligatorily so when the conditions on application are in effect), puts them in a relatively low A-position in the 'middle field', and appears to be contingent on the verb leaving the verbal core ('Holmberg's Generalisation' — rooted, for the Scandinavian languages, in a requirement of order preservation). Yiddish is the only Germanic language that does not obey the order preservation requirement. But this may very well be because Yiddish is less closely related to Scandinavian than it is to German and Dutch — languages for which the effect of Holmberg's Generalisation cannot be ascertained (due to their OV make-up) but whose syntax indubitably has a 'middle field' operation that is different from object shift in affecting non-nominal material (PPs and secondary predicates).

7.2 Scrambling

This other 'middle field' operation, traditionally called 'scrambling', often appears to conflate with object shift when nominal undergoers are involved. But if one strictly separates object shift and 'scrambling', for instance in terms of their response to Holmberg's Generalisation (order preservation), one may find that the two have neatly definable properties — although it may still be difficult to tell them apart in particular circumstances. If scrambling is a movement process, it probably must be an instance of Ā-movement — but the status of the A/Ā-distinction is itself a matter of considerable uncertainty in the current state of the art: Chomsky *et al*. (2023:63), after a brief exploration, conclude that '[t]he nature of, and ultimate explanation for, the A/A-bar distinction constitutes an important question which we leave open here'.

7.3 Other 'middle field' operations

Object shift and scrambling almost certainly cannot be conflated. There is no harm in identifying two operations in the 'middle field' that can both target nominal elements: indeed, Yiddish, West Flemish, Scandinavian and French give us reason to recognise at least one more such operation, affecting negative constituents of varying categorial plumage (recall (19) for Yiddish, Haegeman's semantic distinction between (20a) and (20b), Scandinavian (21) and (22), and French *je n'ai rien dit* 'I NEG have nothing said, i.e., I didn't say anything'). What we need is criteria that define these operations precisely. Such criteria are not fully in place at this time. But a 'divide and conquer' approach of the type suggested here may allow the smoke to clear and the dust to settle, creating the right conditions for precise ways of teasing apart object shift and other phenomena at the left edge of the low verbal domain.

7.4 On topichood, movement *vs* base-generation, and the distribution of resumption

The perennial question of whether object shift and scrambling do or do not involve movement, from which I started out, has not been given a clear answer in the contributions to this volume (incl. this synthesis article). I will close by placing this question in a wider context, by considering the properties of phenomena collectively identifiable under the rubric of 'topicalisation'.

For topicalisation in the high left periphery, different treatments are available in the literature — and these different treatments in all likelihood target different placements of given information. Island-sensitive cases of topicalisation involving a gap in the position in which the fronted argument receives its θ-role (illustrated in (31)) are standardly analysed in terms of movement leaving a trace or silent copy. By contrast, island-insensitive instances of topicalisation in which the topic is associated with a personal pronoun in the argument's θ-position (this is standardly called 'hanging topic left dislocation'; an English example of this is given in (32)) base-generate the topic up high and establish a relationship of binding or coreference between the topic and its pronominal associate. In addition to these two strategies for topicalisation, Dutch and German feature a third (referred to in the literature as 'contrastive left dislocation', and illustrated for Dutch by (33)), holding a middle ground between the alternatives involving a gap or a pronominal: as in the pronominal strategy, the topic in clause-initial position has an associate; but this associate (a so-called '*d*-pronoun', similar to demonstratives and definite articles) is not in or near the argument's θ-position but itself also finds itself in the left periphery, immediately preceding the finite verb in the root clause.

(31) a. Peter, she knows *ec* well
b. *Peter, I don't believe the claim that she knows *ec* well

(32) a. Peter, she knows *him* well
b. Peter, I don't believe the claim that she knows *him* well

(33) Peter, *die* kent ze goed
Peter *d*-PRON knows she well

There are a variety of different approaches to left dislocation of topics in the generative literature (see Den Dikken & Surányi 2017 for references and discussion). My point in bringing up these various strategies for the topicalisation of a non-subject argument is that one might *a priori* expect them to have close counterparts for object shift and scrambling, which (as the contributions to this volume confirm) typically have the information-structural function of marking the displaced constituent as a topic. This expectation is not confirmed: neither object shift nor scrambling allows any form of resumption, whether by a personal pronoun or by a *d*-pronoun. Thus, in Dutch, both (34) (where *zonder enige twijfel* 'without any doubt' is included in order to create distance between the scrambled DP and its pronominal associate) and (35) are woeful with the resumptive (the pronoun *hem* or the *d*-word *die*) included.

(34) ze beweert dat ze Peter zonder enige twijfel (*hem) gisteren nog heeft gezien
she claims that she Peter without any doubt him yesterday still has seen
'she claims that without any doubt she saw Peter as recently as yesterday'

(35) ze beweert dat ze Peter (*, die) gisteren nog heeft gezien
she claims that she Peter *d*-PRON yesterday still has seen
'she claims that she saw Peter as recently as yesterday'

The ungrammaticality of resumption by a personal pronoun of a constituent shifted leftward within the 'middle field' (as in (34)) could be taken as evidence against base-generation as an analytical option for object shift and scrambling. Certainly, if these operations cannot involve base-generation, the possibility of pronominal resumption is never on the table. A non-movement approach could also rule out pronominal resumption, with an appeal to an anti-locality constraint on such resumption (thinking here of Grohmann 2003).

But anti-locality will not straightforwardly cover the ill-formedness of scrambling in combination with a *d*-word, as in (35). In contrastive left dislocation constructions, the topic and the *d*-word actually want to be very close to one another. Indeed, in Grohmann's (2003) influential analysis of contrastive left dislocation (featuring movement *cum* surface anaphora), the explanation for the occurrence of the *d*-word hinges precisely on the local nature of the link between the topicalised constituent and its associate: for Grohmann, the topicalised constituent first moves into the topic position and thence into a higher position in the left periphery, a movement operation taking place within the confines of a single 'prolific domain' (in Grohmann's sense), as a result of which both the moved topic and the copy left behind must be spelled out separately — the *d*-pronoun is pronounced precisely in order to legitimate movement within a single domain. In light of this, the fact that topical material and a resumptive *d*-pronoun cannot jointly be found in the *Mittelfeld* cannot be blamed on anti-locality. If Belletti (2004) is right that the area between T and VP can feature information-structural functional projections, and if this area can contain positions for both a scrambled element and a *d*-pronoun, then the equivalent of contrastive left dislocation in the *Mittelfeld* will be difficult to block.

One could draw two conclusions from this: either *(a)* the *Mittelfeld* does not, after all, contain functional projections for information-structural dependencies or, if it does, *(b)* this 'low left periphery' is poorer, less developed than the 'high left periphery' in being unable to accommodate both a fronted topic and a resumptive *d*-word. Which of these conclusions (or both, if either) is correct, and what the wider implications will be, is for future research to investigate.

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