Master's thesis

NTNU
Norwegian University of Science and Technology
Faculty of Humanities
Department of Language and Literature

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Problematising floating quantifiers

Evidence from Norwegian

Master's thesis in English

Supervisor: Andrew Weir and Christopher Wilder

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Abstract

A quantifier is so called because they quantify the entities of the DP which follows them. A floating quantifier, on the other hand, is so called because while they still quantify a DP, they are seated at another place in the sentence apart from this DP: in other words, they seem to have *floated* away from it. However, the sentence as a whole seems to retain the same semantic sense independently of the placement of the quantifier. This phenomenon have sparked debate on how to interpret the phrasal properties of the floated quantifier, as its surface position seems to be identical to either that of an adverbial situated in a verbal phrase or as that of a constituent stranded in a DP trace-position through A-movement. Researched variants of the phenomenon seem to be adequately explained either by one of the analyses, by both, or by neither.

Within the research field of floating quantifiers, English floated quantifiers have received a large amount of study, alongside other languages like French and German. The floating quantifiers of the Scandinavian languages, however, have received little to no attention up until now. Therefore, the first aim of this thesis is to map out the distribution of the Norwegian floating quantifier and the ways its distribution differentiates with the distribution of the English floating quantifier. The second is to attempt to analyse these data within the available framework.

Through this research, I have found that the Norwegian floating quantifier in some ways seems to mimic the behaviour of its English counterpart, such as by being able to float in middle position following the finite verb. However, in six different major points the Norwegian floating quantifier distinguished itself from the English, which is shown by the following behaviours of the Norwegian quantifier:

1) Both universal and partitive quantifiers display floating abilities;
2) Universal quantifiers can float in sentence-initial position;
3) Universal quantifiers can float in sentence-final position;
4) No quantifier can be floated in embedded clauses;
5) Quantifiers' floating ability seen to have a mass/count-restriction;
6) Norwegian floating quantifiers have scope over pronoun DPs.

Sammendrag

Kvantorer, også kjent som mengdeord, er slik navngitt fordi de forteller om kvantiteten, eller mengden, av innholdet i dens påfølgende determinativfrase. En flytende kvantor, derimot, er plassert på en annet plass i setningsstrukturen enn den plassen hvor determinativfrasen den hører sammen med befinner seg. Tross dette ser ikke setningen ut til å endre semantisk betydning etter hvor i setningen kvantoren står. Overflateplasseringen av kvantoren kan både samsvare med å være et adverbial eller en form for nomenfrase etterlatt på en av plassene subjektet har flyttet seg gjennom, som er grunnen til at det stadig pågår en debatt innen forskningsfeltet som dreier seg rundt den riktige klassifiseringen av frasen. Forskningsdata fra andre språk viser at ingen av analysene kan fullstendig forklare fenomenet hver for seg.

Engelsk er et av de språkene som har undergått mye forskning innen dette området, som det er har til felles med språk som fransk og tysk. Derimot har flytende kvantorer i skandinaviske språk mottatt veldig lite oppmerksomhet innen feltet, som har ført til at det i dag finnes lite kunnskap om hvordan flytende kvantorer oppfører seg i norsk. Derfor består denne av to deler, derav den første delen har som mål å kartlegge distribusjonen av norske flytende kvantorer og hvordan denne er forskjellig fra distribusjonen til den engelske flytende kvantoren. Den andre delen har som mål å forsøke å analysere disse dataene i henhold til det eksisterende teoretiske rammeverket.

Gjennom dette forskningsarbeidet har jeg funnet ut at den norske flytende kvantoren ser ut til å ha den samme distribusjonen som dens engelske motpart i noen henseende, først og fremst at de begge kan flyte i middelposisjonen etter det finitte verbet. På en annen side skiller norske flytende kvantorer seg fra de engelske på disse seks forskjellige punktene:

1) Både universelle og partitive kvantorer er i stand til å flyte;
2) Universelle kvantorer kan flyte i starten av setningen;
3) Universelle kvantorer kan flyte i slutten av setningen;
4) Ingen norske kvantorer i leddsetninger;
5) Norske kvantorer ser ut til å ha forskjellige flyteevner etter hvorvidt de er massesubstantiver eller tellesubstantiver;
6) Norske flytende kvantorer foretrekker å jobbe med pronomen-DP-er fremfor leksikalske DP-er.

Dedication

There are a whole bunch of lovely people to whom I owe the mere existence of this thesis.

My first dedication goes to my supervisors Andrew Weir and Christopher Wilder. They have been an incredible support to me throughout the entire writing process by being amazingly patient, wonderfully helpful, and fantastically inspiring to me. In addition to being the most supportive supervisors anyone could hope for, it was their fascinating lectures that made me interested in linguistics from the very beginning of my academic experience.

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We are all products of those that inspire us, and these people have played a major part in placing me where I am today. I hope you all find this to be a positive thing.

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1 Literature review

1.1 What are floating quantifiers?

Quantifiers are a class of words related to the category of determiners and are called so 'because they serve to quantify the […] noun expression which follows them' (Radford 2004, p. 42). Quantifiers can be universal or partitive, meaning that they either denote all the members of a given set, as in (1a), or part of the members of a given set, as in (1b):

(1) a. **Both** students are coming to the party.
b. **Some** students are coming to the party.

In these examples, both quantifiers are DP-adjacent. Often, however, the quantifier is not adjacent to the DP it modifies but seems to have *floated* away from its original position. These are aptly called *floating quantifiers*.

(2) a. The students are **both** coming to the party.
b. The students are **all** coming to the party.

These floating quantifiers, FQs for short, seem not to semantically alter the meaning of the sentence (although I will come back to this point later in this chapter), and seem to appear in a range of languages, including European languages like English, French, German, Swedish, and Icelandic.

Since the issue of floating quantifiers first was addressed, several different theories have arisen on how floating quantifiers work and which word class they belong to. In this chapter I will outline the two main theories concerning floating quantifiers as well as the issues concerning these.

1.2 Syntactic base ground

In this subchapter I will give an outline of the most basic concepts, constituents, and movements used in the minimalist syntax theory, on the model represented and used by Radford in Minimalist Syntax (2004) and Minimalist Syntax Revisited (2006). Of course, the syntactic representation given below is not at all the only representation existing, and not even the only representation available within minimalist syntax theory. It is, however, representative enough to communicate the relevant data covered in this thesis without being unnecessarily complicated.

It is to be noted that the notions given below will not be a fully comprehensive outline of all constituents and movements used in minimalist syntax, but rather an introductions to those most important in the discussion of the concept of floating quantifiers and their functions and movements in the sentence. It is to be noted as well that even though the minimalist syntax theory can be applied to represent all languages, the movements and constituents used for different languages as a matter of course will vary. The degree of variation is, however, naturally variable. In this outline below, I will present movements and constituents used in the minimalist representations of both English and Norwegian. However, even though Norwegian syntax adheres to the rules below, it also has locations and movements that English do not have. These will not be covered directly below, but

they will be covered when discussing Norwegian syntax and sentence structure later in this thesis.

1.2.1 The sentence structure

In the minimalist syntax theory according to Radford (2004, 2006), the structure of the sentence is shown in a tree model with a CP-TP-VP binary branching structure. In this branching system, all new components are *merged* with their sister nodes in a bottom-up-fashion. Following the binary structure, all bottom nodes have a sister node – and all sister nodes have a mother node. The constituent determining the phrase (in English, for example, this word is the one situated as the left daughter of a full phrase) is its head, and its position is called the head-position. Phrases might have bar-projections, which are written with the prefix ´ and is a kind of suspension of the mother node, but all maximal projections XP in a tree diagram have a daughter node called a *specifier* (or [SPEC]) of that phrase. This specifier decides what sort of phrase its maximal projection is.

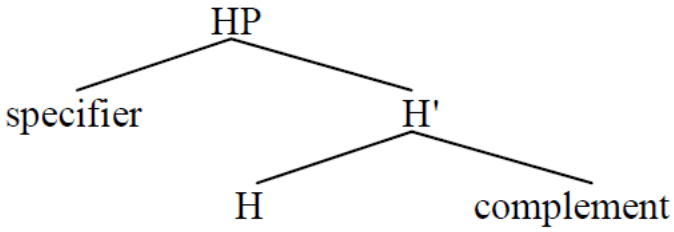

FIGURE 1 (RADFORD 2006, P. 37)

The TP of CP-TP-VP-structure is the *Tense Phrase*. This phrase has been called a number of things during the years, according to the different theories used and the preferences of the linguists using them, i.e. Infl (inflection) and IP (inflection phrase). I will adhere to the TP-notation in this paper. The Tense Phrase, as the name suggests, contains the verb's tense. There can be, and most often are, other types of functional items in-between the CP-TP-VP-formula, such as Aux- or Neg-phrases. The above-mentioned formula can also be repeated in complex sentences with embedded clauses. The formula's hierarchy, however, is never altered.

Nominals were earlier categorized as Noun Phrases/NPs, where the noun was considered the head of the phrase. Following the work of Abney (1987), however, they are now as a rule given the status as Determiner Phrases/DPs, with this internal structure:

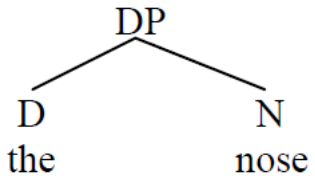

FIGURE 2 RADFORD (2006, P. 35)

When there is no overt determiner, the determiner-node is empty (Ø), but the phrase is still defined as a determiner phrase, with the null determiner heading the bare nominal. This hypothesis is called the **DP Hypothesis**. This theory is not limited exclusively to determiners, however: according to Radford (2006), 'bare nominals […] are generally headed by a null determiner or null quantifier' (p. 81), saying that all NPs can be seen as either DPs or QPs. The determiner or quantifier in question has undergone a form of *ellipsis,* which is the term used when elements in the sentence are still present in the sentence structure but omitted in PF – meaning that they are present, only not pronounced. One such form of ellipsis is called *gapping*, which Radford (2004) defines as '[…] a grammatical operation by which the head of a phrase is given a null spellout – and so has its phonetic features deleted – when the same item occurs elsewhere within the sentence' (p. 112). He further states that 'although an ellipsed item loses its phonetic features, it retains its grammatical and semantic features' (p. 112). As such, when phrases move successive-cyclically upwards in the sentence structure, as will be illustrated later in this chapter, the phrase is still grammatically, and semantically, present. According to some, however, the DP can be further broken down into what is called a shell structure, which I will mention later in this chapter.

1.2.2 Successive-cyclic movement operations

According to Radford's (2006) depiction of Minimalist Theory, I will assume that constituents move in a successive-cyclic manner. The term *successive-cyclic movement* used here has the meaning that the element in question stops several places along the way, instead of in just going all at once. All long-distance movement operations are considered to be successive-cyclic, thus adhering by the Minimalist Programme's *Locality Principle,* which postulates that all 'grammatical operations are local' (Radford 2006, p. 17). This locality principle also holds that an element in a specifier-position must move to the nearest appropriate landing site when moving, meaning that an element in [SPEC] will move in a successive-cyclic fashion from [SPEC]-position to [SPEC]-position.

This thesis will in a large degree base its evidence on the VP-Internal Subject Hypothesis (VPISH for short). When discussing the two competing theories explaining the FQ phenomenon, the Stranding Analysis will largely base itself on VPISH, as well as providing extra evidence for it, as the two were developed at around the same time. This hypothesis claims that non-expletive subjects, meaning subjects containing semantic meaning, thus contrasting them from dummy subjects such as *it* and *there*, originate in a [SPEC]- position within the VP. From this position it moves successive-cyclically to [SPEC-TP] (Radford 2006, p. 156), VPISH was introduced by Kitagawa (1986), and the Stranding Analysis by Sportiche (1988).

When providing evidence for VPISH, which bases itself on the concept and existence of the subject, it is necessary as a ground base to establish the existence of the subject as a syntactic constituent and semantic concept in the first place. This subject, if you like, is e.g covered in McCloskey (1997), where he discusses the fact that even though the concept of subjecthood is central to almost all Western hypotheses of philology and grammar, the subject have gone from a central position in early syntactic theories to playing no formal role at all in the Minimalist Programme. One of the problems that arises with the idea of the subject as formal category which possesses certain general

qualities, is that these categories thought of as general are not necessarily true for all languages. VPISH is classified as a form of **A-movement**, meaning a form of movement where the element moving is an argument expression. All movement by non-argument expressions is called A'-movement, one example of which is WH-movement, which will become relevant when discussing McCloskey on WH-movement and floating quantifiers in Irish English (2000).

1.2.3 The Split VP-hypothesis

Later on, this hypothesis has been further improved by the Split VP-Hypothesis, introduced by Larson (1988) and further developed in i.e. Sportiche (1990) and Chomsky (2000). The theory argues that there is another verbal phrase above VP, called vP, a theory that has since been widely accepted (Cirillo 2009, p. 9). This ensuing structure is also called a shell structure. Under this approach, transitive and causative verbs move from head VP-position to head vP-position.

While a verb being transitive means that the predicate has two or more arguments, causativity is term used for verbs implying an action being caused by something with an agentic purpose to something else (Saeed 2016, pp. 164-166). As such transitivity and causativity in verbs both involve a predicate having two or more arguments, but while every causative verb is transitive, far from every transitive verb is causative.

The Split-VP Hypothesis postulates that the base-position of agentive subjects is [SPEC, vP] instead of [SPEC, VP] (Cirillo 2009, p. 9). There are many perks following this model. Firstly, it can represent these transitive structures with three verbal arguments in a binary branching system by employing both v' and V'-projections by basing the DO in [SPEC, VP]. If we also operate with an AgrOP (Agreement Object Phase) and assume that it is based in-between VP and vP, and that direct objects are base-positioned in [SPEC, VP], that would then mean that direct objects move from SPEC-position to SPEC-position instead of from complement-position to SPEC-position (Cirillo 2009, p. 9). This follows the minimalist programme rule (postulated earlier), namely that elements in SPEC-positions are only able to move locally to another SPEC-position above.

This shell layering is not, however, necessarily exclusive to VPs. According to Radford (2004), linguists have long argued that there is 'a cross-categorical symmetry between the structure of verb phrases and noun phrases' (p. 367). As such, if VPs have an outer vP shell and an inner VP core, then one can assume that the same is applicable to nominals. This structure for nominals would thus include an outer nP shell and an inner NP core. The inner NP core could thus house a lexical noun in head position, while nominal modifiers such as adjectives, determiners, and quantifiers could have their seat in the outer nP layer. This system will not be further utilised in this thesis, but it is interesting and, as such, still worth a mention.

In addition to making it easier to represent transitive structures, a second perk with the vP shell hypothesis is that it connects both the syntactic and semantic aspect of sentence analysis. Both transitivity and causativity imply agency; and by postulating that transitivity, causativity, and their implied θ-roles are assigned at vP, then according to Cirillo (2009), 'we can differentiate between agentive verbs and non-agentive verbs in a formal way' (p. 9).

I have earlier mentioned the concept of A-movement, or argument movement, so called because it involves movement of the arguments of the sentence. These arguments are typically the sentence's subject and complement(s), which we have established originate

within the VP at base level – the VP being the predicate licensing the argument(s). However, these arguments play quite different semantic roles in the sentence as these possible roles shows the argument's agency, or lack thereof, in the action described. These semantic roles are called thematic roles, or theta-roles – a term brought into regular usage by Dowty (1986) and Jackendoff (1990) (Saaed 2016, p. 149). These roles use seven different categories and aim to formally distinguish the agency of arguments in a sentence. Saaed (2016) describes some of these themes as i.e AGENT ('entity instigating some action' (p. 251)) and THEME ('entity undergoing the effect of some action' (p.251)).

1.3 Quantifiers and movement

A quantifier, according to Radford (1997), is a determiner that denotes quantity and modifies a noun phrase (p. 46)[1]; for example, if one has the QP 'both fish', the quantifier *both* modifies the noun phrase *fish*, as in the sentence

(3) **Both fish** were taken by rod.

A quantifier, however, do not always appear adjacent to its DP. The phenomenon of **Floating Quantifiers**, FQs for short, show just this. The syntactic definition of a floated quantifier is 'a quantifier that is not adjacent to the DP that it modifies' (Cirillo 2009, p. 1). The name given to them is a remnant from the earliest proposals on the phenomenon assumed the quantifiers to be "floating" away from the DP in a rightwards fashion (Bobaljik 2003, p. 1). The floating quantifier phenomenon is exemplified by (1) below:

(4) a. **All** the students have finished the assignment.
b. The students have **all** finished the assignment. (Bobaljik 2003, p. 1)

Bobaljik further notes that the meanings of these two sentences are obviously quite similar, and that they apparently involve the same collection of words (p. 1); the only detail appearing to separate a and b, is that the quantifier is floated in sentence b. While this example illustrated the phenomenon for English only, floating quantifiers (FQs) have been observed in an array of other languages as well, like French, Italian, German, and Icelandic[2], to mention a few.

As for explaining how FQs actually behave in a sentence, there are two competing approaches: the Stranding Analysis (SA) and the Adverbial Analysis (AA). There are also advocates preaching a mixed approach, however, in that some quantifiers can be considered stranded, while others function as adverbials (see Fitzpatrick 2006; Cirillo 2009). The next two sections will present the two former approaches respectively.

1.3.1 The Adverbial Analysis approach

Before the Stranding Analysis was introduced in Sportiche (1988), the prevalent theory on the floating quantifier phenomenon was the Adverbial Analysis, the most known depiction of which is found in Belletti (1982). The adverbial analysis holds that floating quantifiers are occupying adverbial positions in a sentence, or in the words of Cirillo (2009), the analysis represents the view that 'floating quantifiers are base-generated as adjuncts to verbal phrases and need a relationship with an antecedent' (p. 1). (See also

[1] In this paper, I will refer to these kinds of phrases as Determiner Phrases (DP.

Belletti (1982); Dowtie & Brodie (1984)). When Cirillo uses the term *adjuncts* in his definition, he refers to the term used to 'denote an optional constituent typically used to specify e.g. the time, location or manner in which an event takes place' (Radford 1997, p. 491). As can be derived from the word, adjuncts are *adjuncted* to constituents, separating adjunction from *merger*; where mergers 'extends a constituent into a larger type of projection' (Radford 2004, p. 341), adjunction 'extends a projection into a larger projection of the same type' (p. 341). In other words, when adjuncts are merged with a projection like T-bar, the projection extends into another T-bar constituent. As such, while the tree projections used when discussing the theoretical workings of the stranding analysis will feature a [Q + DP]-element moving successive-cyclically from [SPEC-VP] to [SPEC-TP], dropping off the quantifier along the way, the tree projections used when discussing the adverbial analysis will feature the quantifier as an adverbial adjuncted to an extended projection of the relevant constituent type.
By the definition of adjuncts, all adverbials are adjuncts, but not all adjuncts are adverbials; adverbials 'convey a range of information about the situation depicted in the basic structure' (Nelson & Greenbaum 2009, pp. 16-17). The term is not to be used interchangeably with adverbs, in that while the adverb is a word class, adverbials are sentence constituents (Nelsen & Greenbaum 2009, p. 17). Other sentential elements that are included in the functional class of adverbials (and which therefor also are a type of adjuncts by definition) are, for example, elements of negation. Adverbials and elements of negation are often shown under the projection AdvP and/or NegP, but the rules of adjunction laid out above are still the same, even if the projection names differ.

The analysis of FQs as adverbials was prompted by the fact that the positions where quantifiers are stranded are the same as, or at least frequently undistinguishable from, the positions occupied by certain adverbs, as exemplified here:

(5) a. The students were <u>all</u> rescued
    b. The students were <u>probably</u> rescued

Under this approach, non-floating quantifiers are thus 'adjuncts to nominal phrases' (Cirillo 2009, p. 1), separating the Adverbial Analysis from the Stranding Analysis on more than one main point: where the Stranding Analysis holds that a non-floating quantifier and a floating quantifier are originally part of the same constituent, making them identical apart from their placement in the structure, the Adverbial Analysis claims that non-floating and floating quantifiers are two different constituents, base-generated in two separate positions, and thus not syntactically related.

1.3.2 Floating quantifiers as anaphora

When the Adverbial Analysis states that FQs need a relationship with an antecedent, the analysis thus categorises an FQ as being a sort of anaphora. According to Radford (2006), an anaphor is 'an expression […] which cannot have independent reference, but which must take its reference from an appropriate *antecedent*' (p. 277, italics added). In other words, anaphora cannot refer to entities outside of the relevant discourse, but must be bound by, or more precisely C-commanded by, an antecedent within the same sentence. The reciprocity in an antecedent-anaphor-relationship in this sense is used to describe the relationship between the FQ (anaphor) and its antecedent (the DP it modifies).

Anaphora is a class of expressions which include not only FQs, but also '*reflexives* (i.e. *self/selves* forms like *myself/yourself/themselves* etc.) and *reciprocals* like *each other* and *one another*' (Radford 2004, p. 92, italics substituted from original bold).

Pollard & Sag (1992) distinguishes between two types of anaphora: the ones that are bound to what they call *Principle A*, and the ones that aren't. Principle A characterizes 'those conditions under which an anaphor *must* be bound' (p. 263), which is a central goal of Chomsky's Binding Theory (1981; 1986). Principle A is given as follows:

> Every anaphor must be coindexed with an NP in an appropriately defined command relation, within an appropriately defined minimal syntactic domain. (p. 263)

The anaphors said to adhere to this principle are the ones they call 'direct argument anaphors' (p. 263), while the anaphors that don't adhere to Principle A are so-called 'picture-noun possessives' (p. 262), meaning that the only category of anaphor not adhering to Principle A are the phrases which semantically references someone's picture.

Anaphors in the form of floating quantifiers are therefore within the category of anaphora which adheres to Principle A of Binding Theory.

1.4 Adverbial quantification

The Stranding Analysis has as its claim and cornerstone that [Q+ DP] is one underlying constituent whether the quantifier is DP-initial or floated, even though there isn't consensus on whether the constituent is base-generated as one, or if the Q is adjoined to it at a later stage in the cycle[3] (see e.g. Bošković (2004)). Thus, the analysis bases itself on the assumption that the floated and the non-floated quantifiers are semantically identical. Bobaljik (2003) more specifically identifies the two necessary assumptions of the Stranding Analysis as following:

(6) a. FQs quantify over the DPs in a way that adverb Qs cannot, and

b. FQs quantify over DPs in the way that (pre-)determiner Qs do. (p. 25)

Thus, the question of the underlying constituent also becomes a question of semantics.

When discussing adverbial quantification in general, I refer to the instances where an adverb in an adverbial position modifies the quantifier of the DP in question, as in example (7b):

(7) a. Students are **all** lazy
b. Students are **always** lazy.

Both of these sentences can be said to exert universal quantification over the DP in question, here 'students': $\forall x\,[STUDENT(x) \rightarrow LAZY(x)]$ (for all values of x, if STUDENT(x) is true, then LAZY(x) is true).

1.3.3.4 Adverbial quantification over situations, times, and events

The first set of approaches to adverbial quantification takes the quantifying adverb, as the one in 7b, to quantify not over individuals, but over situations, times, and events (see e.g. de Swart 1991). According to Bobaljik (2003), if it can be shown that sentences using a universal floated quantifier excludes event quantification, then this analysis would

[3] This theme will also be discussed in the sub-chapter on the Stranding Analysis in this thesis.

support the claim that adverbial quantifiers and floated quantifiers would take scope over events and individuals respectively. When I use the term *scope*, I refer to 'the range or limit of dependency of one item upon another in a structure' (Saeed 2016, p. 453). The scope of the quantifier is the predicate expression. When one talks of scope, one often talks of scope ambiguity. Scope ambiguity arises when there is more than one available interpretation of the sentence in question, or in other words, when more than one of the abovementioned ranges can be identified.

1.4.1 Adverbial Qs as unselective binders

The second set of approaches to adverbial quantification (see Lewis (1975)) takes adverbials to be unselective binders, which means that universal quantification is achieved in both examples (7a) and (7b) 'via binding of an open variable in the DP' (Bobaljik 2003, p. 27). Lewis (1975) points out the flaws in the first approach by pointing out that the time that is to be quantified over can be stretched to include moments of time, stretches of time, and stretches of time limited to a restricted time range, as in this example:

(8) Caesar seldom awoke before dawn. (Lewis 1975, p. 6)

What entails a *moment* is also notoriously difficult to define. Quantifying over events proves difficult as well, as 'sometimes it seems that we quantify not over single events but over enduring states of affairs' (Lewis 1975, p. 7). Lewis' solution is to say that adverbs of quantification are quantifiers over cases, where the cases are 'the admissible assignments of values to these variables' (Lewis 1975, p. 10), where the variables in question are the free variables in the sentence, which then are bound by the quantificational adverb. Free variables are variables that are not already bound to a definite real concept, and which therefore are free to be bound by the relevant predicate. Free variables are usually represented by the last letters in the alphabet, x, y and z, while bound variables are represented by a letter of the author's choice.

Lewis stresses, however, that not all variables can be bound by the adverb in question, and that some remain immune, and need be bound by a quantifier with a larger scope (p. 10).

Bobaljik (2003) further points out that this approach thus fails to support this claim in that 'the unselective nature of the Q in [(7b)] does not follow necessarily from its status as a VP-modifier' (p. 27).

What is important to keep in mind when contemplating these two approaches, however, is that even if the one may support the statement that FQs quantify DPs in the same manner as pre-Q DPs and the other do not, neither of these approaches actively disprove the Stranding Analysis in any manner. If it is wrong to assume that 'FQs quantify over the DPs in a way that adverb Qs cannot' (Bobaljik 2003, p. 25), the truth of which has much been assumed in Stranding Analysis approaches to FQs, it might still be true that 'FQs do not occur in adverbial positions and that the constructions have quite different derivations' (Bobaljik 2003, p. 29). The argumentation does challenge, however, the assumption that a transformational analysis (one where there is movement involved) is the only way for the sentences (1a) and (1b) to have the same meaning.

As for the assumptions that floated and non-floated quantifiers quantify over the DP they modify in the same manner, there are semantic challenges to that statement as well.

One of these is the fact that there are some cases where the FQ offers readings which are not available when the Q is in DP-initial position, as in this example provided by Bobaljik (2003):

(9) a. All lions, tigers and bears are scary.
b. Lions, tigers and bears are all scary. (p. 29)

Here, both sentences offer the scope reading that all the animals mentioned are inherently scary, but in example (5b), the one with the floated quantifier, there is said to be an additional reading; namely a reading which prompts that animals within all these groups are *generally scary*.

Another factor that separates floating and non-floating quantifiers is how FQs are limited to taking surface scope, while non-floating quantifiers have all scope readings available – meaning that sentences with DP-initial quantifiers have the potential of sentence ambiguity, while sentences with FQs don't (see Williams 1982; Dowty and Brodie (1984); Déprez (1994b)).

There is an exception to this rule, however, noted by Dowty and Brodie (1984), in that 'an FQ seems to be able to take scope under a following negation just in case that negation immediately follows the finite auxiliary' (Bobaljik 2003, p. 31). For more information on how floated quantifiers behaves with negation, see Cirillo (2009, ch. 3).

1.5 Stranding Analysis approach

The Stranding Analysis is on its own a critique on the issues of the adverbial analysis. However, there are problems with the stranding analysis as well, and some of these issues are better explained by developed versions of the adverbial analysis. As the situation is today the floating quantifier phenomenon, as seen cross-linguistically, have some elements which are better explained by the stranding analysis, while some elements are better explained by modern variants of the adverbial analysis. Therefore, most modern views on the phenomenon use elements from both analyses.

In this subchapter, I will first give an overview on the most notable research done on the stranding analysis and their major points. Then, I will present the major issues that have risen concerning the analysis – some of which have found possible explanations, others which have not.

1.5.1 Introduction of the Stranding Analysis

The Stranding Analysis was first introduced in Sportiche (1988), opposing the prevalent Adverbial Analysis advocated by e.g. Kayne (1975) and Dowty (1984). Where the Adverbial Analysis proclaims that the FQ is an adverbial quantifier which modifies the VP, making the quantifiers in (5a) and (5b) two different phrasal categories, the stranding analysis, as it was proposed by Sportiche, held that the FQ was a 'nominal inside of NP that ended up adjacent to a verbal phrase when it had been left behind or s*tranded* when its complement moved to [SPEC, IP]' (Cirillo 2009, p. 4, original italics). In other words: this approach holds that when nominals move successive-cyclically, they have the ability to "drop off" one of their constituent parts – the quantifier. I have mentioned previously how, according to Radford (2004) and the minimalist syntactic approach, a quantifier or a determiner can join itself together with a nominal to make one phrasal expression. This

approach also suggests that [Q + DP] (dubbed a Quantifier Phrase, QP for short) is one constituent, and that this constituent is the same whether the quantifier is prenominal or stranded. When the quantifier is left stranded and the nominal moves on in the structure, the nominal moves from complement position of QP to [Spec, QP], and then onwards, while the quantifier is left in the head position of Q'. Cirillo (2009) illustrates this movement as follows:

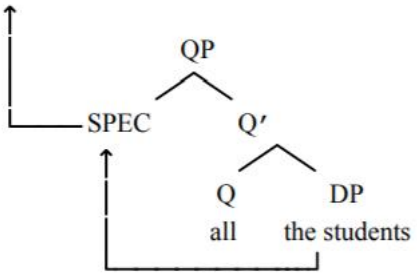

FIGURE 3 CIRILLO (2009, P. 5)

The proposal that 'a floating quantifier is a functional head that heads a Quantifier Phrase and selects a DP as its complement' (Cirillo 2009, p. 5) was made by Shlonsky (1991), thus editing Sportiche's (1988) suggestion that floating quantifiers are 'determiner-like adjuncts within a nominal phrase' (Cirillo 2009, p. 5). As I've previously covered on the difference between merger and adjunction, this difference in interpretation of the quantifier phrase also changed the visualisation of the tree models used to illustrate the phenomenon.

To give a simple example of Q-float illustrated in the stranding theory, I will use the example () from the start of the chapter: 'Frogs are all green', where the quantifier is stranded in [Spec, VP]- position:

(10) [TP [DP frogs$_i$] [T' [T are] [VP [QP all ~~frogs~~$_i$] [AdvP green]

The places quantifiers are capable of being dropped off are not random. Sportiche himself noticed that floating quantifiers always float in *DP-initial position* (1988, p. 427, italics added), which is part of his evidence for the analysis. These DP-initial positions are the positions whence the DP has moved through from its base position inside the VP. The number of places the nominal will circle through depends on the complexity of the sentence. Through this movement, which is a form of A-movement as it involves one of the arguments of the sentence, the DP is said to leave a *trace* (illustrated in the example above with $_i$). Therefore, these positions are also often called *DP trace-positions*.

However, these positions are on the surface identical to those of *anaphors*, which is the approach used to explain floating quantifiers by followers of the adverbial analysis. I will return to this problem later in this chapter.

The SA approach also provides a non-anaphoric solution for the seemingly anaphoric nature of floating quantifiers, which I have outlined previously in this chapter. Anaphors are not one constituent in base-position, but they are still self-refencing in the sentence through c-commanding, despite being placed in quite different positions. This has been one of the arguments for the followers of the adverbial analysis to explain how floating quantifiers can be semantically connected despite being non-adjacent to the DP they modify. However, Sportiche (1988) pointed out that the gender and number inflection in French floating quantifiers such as tout/toutes (*all*) looked like the same kind of inflection

seen on determiners and adjectives in French. This inflection cohesion is the motivation for saying that the quantifier, at some point in the derivation, syntactically a constituent with the DP, and not an anaphor. English do not have this inflection in the relationships in its determiners and adjectives, but this relationship is, besides French, also found in languages like German.

1.6 Issues facing the Stranding Analysis

Bobaljik (2003) recognize mainly four issues with the stranding analysis, which are a) explaining the 'anaphor-like locality restrictions on FQs' (p. 15) which differs depending on whether the DP has undergone A-movement or A'-movement; b) that the analysis predicts the acceptability of FQs in DP-trace positions in passive and unaccusative sentences, which is not accepted in English; c) that stranding theory does not predict how A'-movement licences floating quantifiers as it does in McCloskey (2000), and d) the cases in which the FQ and the DP cannot form a grammatical constituent together, which thus challenges the 'hypothesis that the FQ and DP are derived from an underlying constituent [Q-DP] (or [Q-PRO])' (p. 22). In the following sections I will address these problems one by one, even if they are not necessarily four separate phenomena but to some degree intertwine.

1.6.1 Anaphor-like locality restrictions on FQs

Earlier in this chapter, I outlined what defines anaphora: that they are dependent on being bound through c-command by an appropriate antecedent and are ungrammatical without them, and that the class of expressions includes both reflexives and reciprocals. I have also mentioned how of the arguments of the adverbial analysis is the anaphor-like restrictions on floating quantifiers.

However, supplementing these points, it has also been shown for standard English that 'a DP which has undergone A-movement may antecede an anaphor or an FQ, but a DP which has undergone A'-movement may not' (Bobaljik 2003, p. 15). This means that a DP which have undergone a form of A'-movement, like WH-movement, cannot be the antecedent to an anaphor: neither a reflexive, a reciprocal, or an FQ. To explain FQs as anaphora does not give the FQ status as an adverb, as all known anaphors and their antecedents famously are DPs, but on the other hand, they might be an example of a special kind of anaphora which are allowed to be adverbials, even if other known anaphora are not. However, adverbials are not restricted by c-command, which is another argument for FQs being DPs.

Even if FQs and their antecedents are anaphora in the standard sense, however, this would still be an argument against FQs and their corresponding DP being one constituent at base level and being separated through A-movement.

Bobaljik (2003) points out that even though the hypothesis that FQs are associated with DP-positions in an A-chain is appealing, as anaphors and DP traces do seem to have the same distribution, it fails to explain why 'FQs must be associated with DP-trace position, and not … WH-traces' (p. 16), as in some variants, quantifiers have been proved to float successive-cyclically through A'-movement, as McCloskey (2000) shows that in the non-standard variety of English he dubs West Ulster English (WUE for short). In this variant, the quantifier *all* is shown to float in a successive-cyclic fashion through WH-trace positions. Here, example (a) show Q-float acceptable in both standard English and WUE, whilst example (b) is acceptable only in WUE:

(11) a. What all did you get $_t$ for Christmas?
b. What did you get all for Christmas? (p. 58)

I will return shortly to this Irish variant of English in this subchapter, as it poses several problems to the stranding analysis.

If floating quantifiers originate as a larger component at base level and are stranded through successive-cyclic movement at some point in the sentence derivation, they are not alone, as there are other movement operations where components at base level have been shown to be stranded in different parts of the sentence as well. Of these, other stranding processes have been proved to be licit exclusively with A'-movement, such as split topicalization and *was…für*-split in German, the latter being a form of WH-movement where the WH-phrase is a constituent as base position, and where one of the constituent's expressions are stranded through successive-cyclic movement (see Merchant (1996)). These examples pose the question of why FQs seem to almost exclusively be licenced by A-movement.

Déprez (1989) suggests that 'intermediate traces of A'-movement, but not of A-movement, delete at LF, and that FQs must be licenced by LF-adjacency to an intermediate trace' (Bobaljik 2003, p. 16). LF is the Chomskyan term for the mental representation of language. In other words, Depréz suggests that the traces of constituents which move through the sentence by A'-movement are deleted at LF, whilst the traces of constituents moving through A-movement are not. This would account for why FQs are only found adjacent to DP trace positions.

Depréz' account does not, however, explain why there is a 'restriction to intermediate trace positions' (p. 16) in the first place, or why 'the deletion of intermediate traces of A'-movement at LF could be independently motivated' (p. 16). In other words – Déprez' account is a coherent and suggestive example of what separates Q-float and WH-movement, but do not offer an explanation why this boundary is present.

The McCloskey example, in addition to some accounts of other European languages such as German, Dutch, and French, challenge the universality of this restriction, in that these variants do not have such a straightforward A/A'-distinction. See Bobaljik (2003) for further discussion on this topic.

1.6.2 Passive and unaccusative sentences

As I have previously covered, agentive subjects are base-positioned in [Spec, vP]. Non-agentive subjects, however, are not. These subjects are found in passive and unaccusative sentences. Unaccusative sentences are sentences headed by a special kind of intransitive verbs, e.g. verbs which have no complement, or in other words, do not assign accusative case (see Radford 2006, ch. 6.5). These intransitive verbs are different from transitive verbs in that 'a typical transitive verb has a thematic subject and a thematic complement and assigns accusative case to its complement' (Radford 2006, p. 162). Radford (2004) provides an example for such a sentence:

(12) *How many survivors* does there remain [some hope of finding ~~*how many survivors*~~]? (p. 255, original italics.)

In structures formed by unaccusative predicates, on the other hand, the complement of the verb is not assigned accusative case, but rather (usually) raised to the subject position and is not assigned a thematic role. One argument supporting this claim is provided by the material McCloskey (2000) provides on quantifier stranding in Irish English, a study I have briefly mentioned before. In the example below, which is an

accepted sentence within this variety, the quantifier *all* is stranded after the unaccusative verb *happened*:

(13) **What** happened *all* at the party last night? (Radford 2004, p. 255. Original bold/italics.)

The quantifier being stranded after the unaccusative verb 'suggests that the wh-expression *what all* originates in a postverbal position as the complement of the unaccusative verb *happened*' (Radford 2004, p. 255). I will return to the McCloskey-variety again later in this chapter, as this variety provides problems for the stranding analysis in several different ways.

Passive sentences, the other sentence type which poses a problem for the Stranding Analysis, are also sentences which have undergone a movement operation where the complement of the sentence is moved into subject position, such as in the sentence "The robber was arrested by the police", where the real agentive subject of this sentence is *the police*.

These types of sentences pose a problem for the stranding analysis which was noted already in Sportiche (1988), in that they are sentence types where subjects leave a DP-trace in the verb complement position at the end of the sentence. Thus, it predicts that a quantifier should be able to be left stranded in this position in these types of sentences. This stranding, however, is not acceptable, as this example from Bobaljik (2003) using the unaccusative verb *arrive*, and the passive construction *were seen*, shows:

(14) a. The students$_i$ have arrived (*all) t_i
b. The students$_i$ were seen (*all) t_i (p. 13)

Several attempts have been made to solve this problem within the framework of the Stranding Analysis. Sportiche himself suggested an analysis of these constructions, which Bobaljik paraphrases as an analysis 'in which the surface subjects of these constructions originate neither in the base position of transitive subjects nor in the base position of direct objects' (Bobaljik 2003, p. 13). In other words, Sportiche suggests that the arguments which are seemingly placed in the subject position in these sentences are originally based in neither [Spec, VP], the position of subjects, nor as a complement of VP. Deprez (1989), on the other hand, suggested that 'FQs may remain in the positions of intermediate DP-traces, but not in thematic (i.e., base) positions.

This proposition is further improved upon by Bošković (2004), who argues that the issue of unacceptable FQs in the object position of passive and unaccusative verbs is part of a greater generalising rule, showing that quantifiers in general cannot float in theta-positions. Bozkovic proposes that the reason FQs cannot float in object position of the verb, even though the nominal subjects of passive and unaccusative sentences move from this position, is because the FQ is adjoined to the DP acyclically after the subject have already moved from its theta-position (Bošković 2004, p. 684). This would thus explain why sentences such as example (15) are not allowed, as the complement of the verb is a theta-position, as have been covered earlier.

(15) * The students arrived all. (Bošković, 2004, p. 682)

According to Cirillo (2009), however, this problem with the stranding analysis is solved in a simple manner by the introduction of the *Split VP-hypothesis*, in that direct objects, passive subjects, and subjects of unaccusative verbs are no longer complements of V, but are rather base-generated in [SPEC, VP]. Using this shell structure, examples such as

(2) are no longer predicted to be grammatical, in that 'the quantifier is located below its base-position' (Cirillo 2009, p. 6).

1.6.3 – Short A-movement

In English, the Irish language variant reported by McCloskey (2000) is the only reported speech variant that strays from the sharp A/A' contrast. When it comes to other languages, however, there reigns some disagreement in the field concerning whether i.e Dutch, and French have this contrast or not. This disagreement is based on examples like this for Dutch:

(16) *Deze boeken*$_i$ *heb ik* ***allemaal*** t$_i$ *gelezen.* (Doetjes 1997, p. 209)

For example are Merchant (1996) and Doetjes (1997) arguing that these languages do allow A'-movement to license for FQs, whilst Déprez (1989) and Bobaljik (1995) are arguing the opposite (Bobaljik 2003, p. 16).

According to Déprez (1989), however, there exists a possibility for what she dubs *short A-movement*, which involves an intermediate stage of A-movement staged left of the participle, which is then dominated by an AgrP (Agreement Phrase) node (Bobaljik 2003, p. 18). When using the term *short A-movement*, what is referred to is 'an intermediate stage of A-movement to the left of the participle' (Bobaljik 2003, p. 18). Thus, when it appears to be A'-movement that is licensing an FQ, the licensing might instead be due to 'an intermediate A-movement through the specifier of an Agr-P' (Bobaljik 2003, p. 18; see also Wyngaerd (1989) and Mahajan (1990)). As such, the difference between e.g English and French is not necessarily that French allows FQ-floating through A'-movement, but that French allows short A-movement through the specifier of an Agreement Phrase.

1.6.4 Doesn't predict A'-movement licencing FQs

I have several times previously in this chapter mentioned the West Ulster English variant researched by McCloskey (2000) and how it quite clearly licenses quantifier float through A'-movement. As mentioned above, this Irish English variant is not the only language variant where DP apparently moves through A'-movement, but what is special about this variety of English is that in contrast to e.g *was…für* split in German. the hypothesis of *Short A-movement* cannot explain McCloskey's reported data on floating quantifiers. This is shown in examples like (17), where the WH-component is not a DP, but an adjunct:

(17) **Where** did they go **all** for their holidays? (McCloskey 2000, p. 58)

Secondly, Bobaljik mentions 'the apparent stranding in an intermediate [Spec, CP]' (p. 20), which is not an acceptable DP nesting spot in English, although it is employed by some analyses of Norwegian syntax, such as the one presented by Åfarli & Eide (2003), which I will return to when discussing Norwegian later in this thesis. There are, however, alternatives to analysing the quantifier as stranded in [Spec, CP]. One plausible alternative is to analyse the quantifier as adjuncted to the verb, which would show why the sequence [main verb + *all*] is, according to McCloskey, a strong prosodic unit where the verb is the most prominent element. However, there is hardly any doubt at all that floating quantifiers in WUE are stranded in WH-positions. Even if they seem to be prosodically attached rightward from the main verb, and mostly accept smaller prosodic units in between, like in (18a) below, examples like (18b) where the quantifier follows rightward to the adjunct are uniformly impossible:

(18) a. ?**Who** did you talk to **all** (at the party)?
b. *__Who__ were you sitting beside **all**? (McCloskey (2000), p. 66)

Why WUE and standard English differ so distinctly in this matter, however, is a different question. Standard English and WUE are such prosodically different, however, that McCloskey himself considers it conceivable 'that the relevant difference between Standard English and West Ulster English […] is that West Ulster English possesses the relevant mechanism of prosodic incorporation but that Standard English does not' (McCloskey, p. 66).

Even though it is still not known exactly why this difference between the two variants is as it is, there are according to Bobaljik (2003) two avenues to pursue when attempting to explain this difference, namely

> Attributing the difference to different lexical properties of the quantifier *all*, or pinning the difference on some yet-to-be uncovered independent syntactic parameter distinguishing WUE on the one hand and other varieties of English (including apparently other varieties in Ulster) on the other. (pp. 21-22)

In other words, there is no doubt that WUE floating quantifiers indeed are stranded in WH-positions through A-movement, but one is not certain whether this difference is present in only this distinct variant of English, or whether this difference is attributable to some semantic difference concerning the WUE floating quantifier itself, or a syntactic parameter found only in WUE.

1.6.5 Cases of non- constituency

The existence of the grammatical constituent [Q + Det], known as QP, is paramount to the interpretation of the Stranding Analysis. As such, the final problem for the Stranding Analysis I will cover here are the cases where the FQ and the DP do not seem to derive from the same grammatical constituent, mostly based on evidence provided by Bobaljik (2001).

One example of such cases in English, brought forth by Bobaljik (2003), are 'cases in which the Q occurring pre-DP […] requires the preposition *of*, or *de* in French, which is here illustrated by use of the universal quantifier *each* and *chacun* (each). These examples are chosen because they float, but are dependent on this preposition to do so when paired with a plural DP:

(19) a. These children have **each** (*of) read a different book. DP_{PL} *…each*

b. [**Each** *(of) these children] has read a different book. *[*each* DP_{PL}](2001, p. 22)

c) Ces enfants ont **chacun** lu an livre 15ifferent.
these children have each read a book different
'These children have each read a different book.'

d) **Chacun** *(de) ces enfants a lu un livre different.
each of these children has read a book different
'Each of these children have read a different book.' (Doetjes 1997, p. 201)

Bobaljik comments on examples such as these that the underlying process here might be some sort of *of-insertion/deletion* which is due to some phonetic or morpholical rule, and as such not necessarily a damning exception to the analysis. However, in examples such

as (20), the floating quantifier is perfectly acceptable, but the NP it is supposed to be moderating somehow is not:

(20)a. Larry, Darryl and Darryl have **all** come into the café.
b. ?* All (of) Larry, Darryl and Darryl have come into the café.

c. Some (of the) students might **all** have left in one car.
d. *All (of) some (of the) students might have left in one car. (Bobaljik 2003, p. 23)

From examples (19) and (20), one can see how the sentences in a) and c) display what seems like perfectly acceptable floating quantifiers, sentences b) and d) show that when fronted with the NP they modify, they are not acceptable; which shows that in cases like these, the [Q + DP] as a constituent do not add up.

Related he last problem for the Stranding Analysis I will mention here is 'complex quantifying expressions in apparently floated positions […] includ[ing] expressions such as *all*/*none of them*, *the both of them*, *all three (of them)*' (Bobaljik 2003, p. 23). In comparison to the examples showing single floating universal quantifiers, these quantifying phrases cannot occur prenominally at all. Another aspect that separates these examples from the latter ones is that they 'in some cases even include pronouns and determiners' (p. 23). As previously mentioned, one of the arguments for the Stranding Analysis is how the floated quantified expression shows agreement with the DP it modifies, as Sportiche (1988) showed to be the case for French. This agreement between the quantifier and the DP is the same whether the quantifier is floated as when the two are part of the same constituent, which is argued to be there as a result of [Q + DP] being a constituent at base level. Complex quantifying expressions like these above, however, also show agreement with the noun they reflexively modify, but, as Bobaljik states, 'there is no corresponding constituent which would underlie the example' (2003, p. 24), as he shows in this example for English:

(21) a. We have **all three of us** completed the assignment on time.
b. ***All three of us** we completed the assignment on time.

In Wood, Sigurðsson, & Zanuttini (2015) they report of similar constructions to those provided by Bobaljik above, which are provided from their study on Appalachian English:

(22) a. **We** don't **any of us** need anything.
b. **We** could **any of us** go at any time.
c. **We** couldn't **none of us** go to the party.
d. **We** couldn't **neither of us** afford to go. (p. 217)

Wood, Sigurðsson, & Zanuttini (2015) show that these constructions in Appalachian English are strikingly similar to ones found in Icelandic. In Icelandic however, which have more case variants of pronouns than English does, they have found that the construction is only acceptable when used with the genitive case variant of the referential pronoun, and not the dative case variant:

(23) a. **Við** getum [**flest okkar**] gert þetta.
we.NOM can [most.N.NOM us.GEN] do this
'We can most of us do this.'

b. ??**Við** getum [flest af okkur] gert þetta.

we.NOM can [most.N.NOM of us.DAT] do this
'We can most of us do this.' (p. 218)

In addition to some varieties of English, this partitive doubling phenomenon have also proved to be common in i.e Dutch (24a,b) and German (24c,d) as well:

(24) a. **Allemaal** heb **ik** ze uitgenodigd
all have I them invited
'I have invited them all.'
b. **Allebei** hebben **we** teveel gedronken
all-both have we too-much drunk
'We have both of us drunk too much.'

c. **All** haben **sie** gelogen.
All have they lied.
'They all lied.'
d. **Beide** waren **si** dabei.
Both were they present
'They were both present.' (Original glossary. Bold not original. Hoeksema (1996, p. 59))

Hoeksema (1996) shows that this construction with fronted quantifiers is very similar to the Dutch structure using anaphora where the reflexive anaphor is fronted:

(25) **Zichzelf** vindt **Evert** niet opwinded.
himself finds Evert not exciting
'Himself, Evert does not find exciting.' (Original glossary. Bold not original. p. 59)

Hoeksema calls this phenomenon 'topicalized anaphora' (2015, p. 59), and shows how this phenomenon can be seen as being parallelised with floating quantifiers, as they seem to employ the exact same seats in the sentence. As I mentioned previously in this chapter, floating quantifiers have a seemingly anaphoric relationship with their DP, having in common that the quantifier must be C-commanded by its DP. In these examples above where the quantifier is seated in sentence-initial position, however, the roles seem to have turned: the quantifier in these cases C-commands all the other positions in the sentence. For example (25) this does not prove a problem, as 'it is well-known that that the c-command condition on bound anaphora is lifted precisely for topicalized anaphora' (Hoeksema, 1997, p. 59).

These quantifying phrases agree with their corresponding DP as a rule in the same way that classic floating quantifiers to, but the analysis of the quantifying expression having originated as a [Q + DP] constituent simply cannot explain how these expressions cannot be fronted in the same way. As Bobaljik states, examples such as these 'appear to present a strong challenge to the assumption that agreement on FQs entails underlying constituency'.

1.7 - Summary

In this chapter I have covered an overview of what I consider to be the most notable points made in the research on floating quantifiers, which include a description of the phenomenon as well as the strengths and weaknesses of the Adverbial Analysis and the Stranding Analysis, which historically have made their mark as the most noteworthy, although often mutually exclusive, descriptions of the phenomenon at hand. Even if both analyses have evolved to answer arising issues concerning the phenomenon over the years, neither of them seem to exclusively explain how floating quantifiers work for all languages being in possession of them, as there are too many exceptions to the rule to be fully explained by either of the analyses. It is therefore today generally accepted that the solution to the issue lies not in thinking of floating quantifiers as a phenomenon capable of being explained as being either DP-constituents or adverbials, but rather as a combination of the two. There also remains exceptions to both rules, such as the Irish English variant reported by McCloskey (2000), whose stranding through A'-movement seems to oppose all other reported evidence on the phenomenon. This idiolects stands as an example amongst others to show that some of the workings of the Floating Quantifier phenomenon still remain a mystery.

2 Norwegian floating quantifiers

In the previous chapter, I defined and described the phenomenon of Floating Quantifiers and how they work in English, as well as referencing research done on other languages such as French, German and Dutch in which the same phenomenon occurs. In this chapter, I will present data on how FQs are distributed in Norwegian. Norwegian have yet not undergone research to any extent on this phenomenon, even though the language is reported in Norwegian literature to have floating quantifiers. However, when one takes a closer look at the distribution of quantifiers separated from their sister noun, quite a number of anomalies from all previous existing research on the phenomenon in other languages present themselves. In this chapter, I will show both how Norwegian quantifiers, even if they at first glance seems to float in the same way reported for floating quantifiers in general, actually deviate to such an extent from all previous reported data that it raises the question of whether they actually are floating quantifiers at all.

To present these data, I will compare them with data from English, which is one of the languages which have undergone the most extensive research on the floating quantifier phenomenon. When relevant, I will also compare the Norwegian and English data to data reported from languages such as Dutch and Appalachian English. All data presented in this chapter will be showcased in the form of elements positioned in a string of words, meaning that I here will focus on the languages' surface patterns. A more extensive representation of the possible syntactic build of floating quantifiers in Norwegian sentences will be discussed in the following analysis chapter.

2.1 Do Norwegian FQs exist?

As mentioned above, the possible existence of Norwegian Floating Quantifiers have not undergone mush research that I can find. Swedish floating quantifiers, on the other hand, have been briefly mentioned by Cirillo (2009), where he shows some examples of apparent Swedish quantifier float. Here he states that 'the rule in Swedish is that a quantifier can be stranded only between the first and second elements in a clause, and if there is only one element stranding is not possible.' (p. 189). Swedish and Norwegian, despite officially being two different languages, are de facto more like dialects, and will as such be discussed to be syntactically similar. The example Cirillo (2009, p. 191) gives to illustrate how stranding is not possible when there is only one verbal element is as follows:

(26) a. **Alla dokterna** undersöker patienten.
all doctor-DEF.PL.M examine patient-DEF.SG.M
b.*__Doktorerna__ undersöker **alla** patienten.
doctor-PL.M examine all patient-DEF.SG.M

According to the stranding theory, however, the seat between the verbal element and the verbal complement should be an acceptable stranding position, as Swedish (and Norwegian) is an V2 language. This cannot be explained by the adverbial analysis either, as the Swedish adverbial *allihop*, which is a universal quantifying adverbial phrase, is acceptable where the quantifier is not:

(27) Doktorerna undersöker allihop patienten.
doctor-DEF.PL.M examine all patien-DEF.SG.M (Cirillo 2009, p. 191)

When it comes to Norwegian specifically, in *Norsk referansegrammatikk* by Faarlund, Lie & Vannebu (1997) the concept of floating quantifiers is mentioned several times as existing in Norwegian. As an example, the term *kvantorflytting* (quantifier movement) is described as a syntactic concept where 'a quantifier can be moved out of a noun phrase and placed in the adverbial position in the middle field if the noun phrase is a subject' (p. 686, my own translation). To illustrate this, they give the following examples:

(28) a. **Begge** **foreldra** hennes er oppvaksne i byen
both-PL parent-DEF.PL.M her are grown-up in town-DEF.SG.M
'Both of her parents are raised in the city.'

b. **Foreldra** hennes er **begge** oppvaksne i byen
parent-DEF.PL.M her are both-PL grown-up in town-DEF.SG.M
'Her parents are both raised in the city.'

c. Ho har mista **begge foreldra** sine
she has lost both parent-DEF.PL.M her
'She has lost both of her parents.'

d.*Ho har **begge** mista foreldra sine
she has both lost parent-DEF.PL.M her
*'She has both lost her parents'

(p. 686, added bold and English translation)

These examples are given to illustrate how only the quantifier modifying the subject is able to move, whereas if the given quantifier modifies the object of the sentence, as examples (28a) and (28b) show, quantifier floating is illicit. This is the case for English as well. As discussed in the literature chapter, has been shown that floating quantifiers and their DPs need an anaphoric relationship, where the floating quantifier needs to be C-commanded by its antecedent, in this case the NP it modifies. In example (28d), the NP *foreldra* do not C-command the quantifier *begge*, making the sentence illicit.
In addition to the example above in (26), Faarlund et. al (1997) divulge a whole subchapter to what they now directly call *flytande kvantorar* (floating quantifiers). What is extraordinary about this chapter, however, is that although the term Floating Quantifiers is used to describe the phenomenon, almost every example shown stray in some way or another from the accepted knowledge on floating quantifiers from almost every other language studied. First of all do Faarlund et. al (1997) state that in addition to the universal quantifiers *alle* (all), *begge* (both) and *ingen* (none), even the partitives *nokon/noen, somme/noen* and *kvar/hver* (some, each) and even the reflective pronoun *selv/sjølv*[4] (self) are mentioned as being able to float. As has been established in literature on floating quantifiers, on the other hand, only universal quantifiers such as *all, both* and *each* have been reported to float. That the reflective pronoun *selv,* according to Faarlund et. al, is able to separate from the DP it modifies in the same manner as

[4] The reason for why some of these words are given in two different forms, is because there are two standard variants of Norwegian, called Bokmål and Nynorsk respectively. These two variants have mostly the same syntax (at least for the purpose of quantifiers). They are both taught in school, but one is usually given precedence over the other, depending on the choices of the county. My variety is Bokmål, but Nynorsk is the one used by e.g. Faarlund, Lie & Vannebo (1997). Therefore, when using and discussing examples from Faarlund, Lie & Vannebo (1997), I will express myself in Bokmål. There will be an orthographic difference, but no semantic or syntactic difference.

quantifiers, exemplified in (29), is in itself a good indicator that something strange indeed is afoot in Norwegian:

(29) **Selv** har **han** ingen ord. (Bjørnstad 1977)
self has he no word-DEF.PL.N
'He himself has no words.'

This example in itself, apart from the fact that their seems to be a floating reflexive pronoun present, presents two other factors that seems to separate Norwegian floating quantifiers from reported floating quantifiers in other languages: a), the DP modified by the quantifier (or in this case reflexive) do not have to be a lexical noun, but is here a pronoun; and b), that the quantifier can float in the beginning of the sentence whilst the noun itself is situated in middle position; exemplified with this example from Solstad (1987):

(30) **Begge** har **vi** våre irrasjonelle drifter.
both-PL have we our irrational desire-PL.M
'We both have our irrational desires.'

They also show how for some partitive cases, quantifiers are only able to float when there is an added reflexive and a preposition phrase, as in this example:

(31) a. *__De__ hadde **noen** matpakke med seg.
they had some food-package-SG.M with themselves
b. **De** hadde **noen av dem** matpakke med seg.
they had some of them food-package-SG.M with themselves
'Some of them brought a lunchbox.' (Faarlund et. al 1997, p. 921)
c. *[Noen av dem] de hadde med seg matpakke

As I show in example c), fronting of this complex quantifying expression is not possible, which show a striking similarity to the complex quantifying expressions shown by Bobaljik (2003, p. 23). These examples for English and French also have in common with Norwegian that they work just as well with pronouns, which is contrary to other floating quantifiers.

Lastly, Faarlund et al. show how Norwegian quantifiers can supposedly also float in the end position of the sentence, a position discussed in the literature chapter which is famous for being predicted as a possible floating position by the stranding analysis, but not being possible. In Norwegian, on the other hand, floating in this position seems to work fine:

(32) '[…] **dei** hufsa seg **begge** og lo stille' (Fløgstad 1977)
they shook themselves both-PL and laughed quietly
'They both shook themselves off and laughed quietly.'

To summarise: the existing literature on Norwegian floating quantifiers illustrate how Norwegian quantifiers seem to float like English in some bearings, like how they seem to float in the adverbial seat when floated in the middle field. On the other hand, Cirillo (2009) and Faarlund et al. (1997) together show a remarkable number of examples where Norwegian (and Swedish) quantifiers seem to float in positions where it is simply impossible for English quantifiers to float, such as at the end of the sentence, and in the beginning of the sentence with the DP it modifies being stranded, as it seems, in the middle field. At the same time, they seem not to be able to float in positions where

English quantifiers can, such as in the middle position betwixt a single verbal element and its complement.

In addition, Norwegian floating quantifiers, contrary to all other floating quantifiers, seem not to limit themselves to universals, but includes partitives as well. Not only that, but reflexives seem to be able to float in the same positions as the quantifiers do. Norwegian floating quantifiers also seems to generally float better when modifying pronouns rather than lexical nouns, which is quite the opposite of what is reported as common in the literature, where floating quantifiers only rarely are able to float when modifying pronouns.

Another unknown factor when dealing with Norwegian quantifiers is the fact that Norwegian quantifying expressions show inflectional agreement between the quantifier and the noun it modifies. So while there is available data suggesting that both universal and partitive quantifiers float, there is no data showing whether all inflections of these quantifiers float, or if the selection is restricted, which would then tell us a lot about the mechanisms behind the nature of Norwegian FQs.

Based on the available data, there are three possible outcomes: that the data given is incorrect; that Norwegian quantifiers float, but in a unique manner not yet researched; or lastly, that Norwegian floating quantifiers despite first appearances are not traditional floating quantifiers at all, but something else entirely.

In this chapter, I aim to largely expand the data available on Norwegian quantifier float by introducing new data, and through these, get a step closer to discovering how Norwegian floating quantifiers really work. I will first and foremost use the Norwegian universal quantifiers *alle* (all) and *begge* (both) as well as the the partitive *flesteparten/mesteparten* (the most part) to explore the apparent floating patterns of Norwegian quantifiers. In addition, I will make use of other quantifiers in situations where there is need for them to fully comprehend the examples given.

2.2 Inflected quantifiers and count/mass-distinction

As mentioned above, one of the factors that differentiates Norwegian and English quantifiers is that while English quantifiers are not inflected according to the gender or plurality of the noun they modify, Norwegian quantifiers, in similarity with languages such as French and German, are. As previously mentioned, one of the arguments of Sportiche (1988) in support of the Stranding Analysis was how, in languages that have inflected quantifiers, the quantifiers show agreement with their NP; thus an argument for the base lever [Q + DP] constituent. As such, the first step I will take in identifying how Norwegian floating quantifiers work is to explore whether Norwegian floating quantifiers retain their inflection when floated. As for Norwegian nouns in general, they are inflected according to number and gender, as well as whether they are definite or non-definite. For regular nouns, masculine nouns are inflected with the suffix *-en* in singular definite form, feminine nouns are given the suffix *-a* in singular definite form (or *-en*; the usage of feminine noun inflection is largely dependent on register), and neuter nouns are inflected with the suffix *-et* in singular definite form. When plural and indefinite, masculine and feminine nouns are given the suffix *-er*, whilst neuter nouns have no visible suffix at all. When plural and definite, masculine and feminine nouns are infected with the suffix *-ene*, whilst neuter nouns are given the suffix *-a*. Throughout the glossary of this thesis, I will mark definiteness, plurality and gender for all nouns, plurality and definiteness for quantifiers, as well as plurality and gender in adjectives. Similarly to English, Norwegian adverbs are not inflected.

First, I will show the inflections of the Norwegian universal quantifier *alle*, which is inflected according to plurality and mass. *Begge* is not inflected, as it is [+PL] in nature and as such cannot modify mass nouns, so it will not be discussed in this subchapter.

As will be seen, the form *alle* in example (33a) and (33b) modifies plural nouns. Example (b) is added to show that even if Norwegian PL/SG nouns are inflected according to definiteness, the quantifier modifying [+PL] nouns is not.

All and *alt* in examples (c) and (d) modify mass nouns – *all* is used when modifying mass nouns of either masculine of feminine gender, whilst *alt* only modify mass nouns of neuter gender:

(33) a. **Alle** **studentene** likte vinen.
all-PL student-DEF.PL.M liked wine-DEF.SG.M
'All of the students liked the wine.'

b. **Alle** **studenter** går på universitetet.
all-PL student-PL.M go to university.DEF.SG,N
'All students og to university.'

c. **All** **maten** var satt på bordet.
all-M/F food-DEF.M was put on table-DEF.SG.N
'All of the food was put on the table.'

d. **Alt** **vann** ble servert i flasker.
all-N water-N was served in bottle-PL.F
'All water was served in bottles.'

2.2.1 Mass/count quantifiers

In the last subchapter, I showed how universal and partitive quantifiers in Norwegian selects for nouns with either count or mass properties, where the first class of quantifiers selects independently of gender. This category includes the count quantifiers *alle* and *flesteparten*. The second class of quantifiers are again sectioned into two categories: quantifiers that selects for gender, and quantifiers that do not. In the latter category, the universal mass quantifier *all/alt* have different inflections according to gender, while the partitive mass quantifier *mesteparten* remains uninflected. In this subchapter, I will show the floating patterns of these categories of quantifiers,

They all seem to share the same universal semantic interpretation, which is the same for English; namely that it refers to all members of a given set. As it has been already been shown that Norwegian quantifiers float, one would expect all three of them to float in the same pattern. These examples below show, however, that this is not the case.

(34) a. **Alle** **studentene** gikk på universitetet.
all-PL student-DEF.PL.M went to university-DEF.N
'All of the students went to university.'
b. **All** **skylda** lå på mine skuldre.
all-M/F guilt-DEF.F lay on my shoulder-DEF.PL.F
'All guilt lay on my shoulders.'
c. **Alt** **vannet** skal koke.
all-N water.DEF.N shall boil
'All of the water is going to boil.'

(35) a. **Studentene** gikk **alle** på universitetet.
student-DEF.PL.M went all-PL to university-DEF.N
b.*__Skylda__ lå **all** på mine skuldre.
guilt-DEF.F lay all-M/F on my shoulder-DEF.PL.F
c.*__Vannet__ skal **alt** koke.
water.DEF.N shall all-N boil

In English, there is no difference in the floating abilities of the floating quantifier *all* when moderating mass or count nouns:

(36) a. The **frogs** were **all** green.
b. The **information** was **all** given yesterday.

The English quantifier *all* is not, however, inflected. But to compare, in other languages like French and German which also have inflected quantifiers, there is no difference in the floating ability of these different variants. The Norwegian universal quantifier *alle*, however, seems to only be able to float when inflecting for count, but not when inflecting for mass. However, not only universal quantifiers seem to float in Norwegian – partitives do to, which makes it imperative to compare the two. The examples below have similar sentence structure to the structures for the universal quantifiers above but are instead made with the partitives *flesteparten/mesteparten*. Most Norwegian partitives do not have different forms according to the word class of the noun they modify, but *flesteparten* and *mesteparten* do, although their meaning seem to be semantically similar: *the-greatest-part-of*. What separates the two, rather than different inflections, is the root. This makes the two different lexical words, despite the similarity in meaning, which put the two in quite a different category than *alle/all/alt*, at least on the surface. Therefore, before I start to show these partitives' floating behaviours, I will make the differences between the two at root level clearer.

As I mentioned above, even if *flesteparten* and *mesteparten* at the surface seems to have the same meaning, this is not necessarily so. Both expressions are compounds made up of three parts: mest/flest+part+definiteDET. The root of *flesteparten* is the adjective *flest*, an inflected form of *mange* (many), in a chain that goes like this: *mange – flere – flest* (many – more – most). *Mesteparten* has as the root *mest*, which is an inflected form of *mye* (much), which chain goes like this: *mye – mer – mest* (much – more – most). As one can see, even if English do not separate between these two variants of *most* on the surface and Norwegian do, but when one goes to the root of the issue, so to speak, much is revealed. In English, *many* is defined as a quantifier, and *much* as an adverbial. In Norwegian, *mange* is a quantifier, whilst *mye* can be either a quantifier or an adverbial – a dual quality which it shares with the English *most*.
When presenting the evidence below, I will mark *flesteparten* with PL in the glossary to

separate the two variants, as the Norwegian *mange* and *mye* share the same difference that English *many* and *much* do: the former selects exclusively count nouns, whilst the latter do not.

2.2.2 Floating partitive quantifiers

When showing the floating behaviours of the partitives below, the first aspect to be noted is that to be fully acceptable, the quantifiers are dependent on the preposition *av* (of), which accompany the quantifiers whilst fronted, and remains fronted when the quantifier is floated elsewhere in the sentence. When *av* is vacant when the quantifier is floated, the examples show very low acceptability; most of my informants deem them as unacceptable, while some report them somewhat acceptable, which is why I in these cases have given them two question marks. In these examples below, I will first show the two variants in fronted position, then in floated position with the prepositional participle fronting the sentence, and then lastly with the quantifier floating without this participle.

(37) a. **Flesteparten** **av** oppgavene er levert inn.
most-part-DEF.PL of assignment-DEF.PL.M/F are handed in
b. **Mesteparten** **av** oppgavene er levert inn.
most-part-DEF of assignments-DEF.PL.M/F are handed in

c. **Av** oppgavene er **flesteparten** levert inn.
of assignment-DEF.PL.M/F are most-part-DEF.PL handed in
d.?**Av** oppgavene er **mesteparten** levert inn.
of assignment-DEF.PL.M/F are most-part-DEF handed in

e.?Oppgavene er **flesteparten** levert inn.
assignment-DEF.PL.M/F are most-part-DEF.PL handed in
f.*Oppgavene er **mesteparten** levert inn.
assignment-DEF.PL.M/F are most-part-DEF handed in
'Most of the assignments are handed in.'

The examples above show that there seems to be two factors deciding how well these partitive quantifiers float: 1), that the floated quantifiers have the highest rate of acceptability when the adjoining preposition *av* is fronted at the beginning of the sentence, and 2), that *flesteparten* all over floats better than *mesteparten*. As for the first point, these examples show a strong similarity to the examples shown in the literature chapter for certain languages such as Icelandic and Appalachian English, a phenomenon dubbed *partitive doubling* by Wood, Sigurðsson and Zanuttini (2015). I will return to this similarity in the final chapter of this thesis.

The second point seems to show the same tendency observed in the examples where the floated quantifiers were universal: quantifiers selecting for plurality float a lot better than quantifiers which do not. This seems to indicate that Norwegian quantifiers must select for plurality in order to float. Another possible explanation is that *mesteparten* is classified as a quantifier when fronted and an adverbial when floated. As it has been established previously that *mesteparten* qualifies both as a quantifier and as an adverbial in Norwegian, this seems to be the more likely explanation. Examples d) and f), however, show that whilst floated *mesteparten* is not as acceptable as its plurality-selecting

counterpart, it still has a level of acceptability when it is combined with the fronted preposition *av*. When this preposition is taken away, the sentence is unacceptable. However, if *mesteparten* was an adverbial, this middle position should be acceptable.

Another position that have famously been shown to be acceptable for adverbs, but not for quantifiers, is the end position of the sentence. As it has been shown that the partitive expressions researched here float a lot more easily along with prepositional *av*, I will from here on show all floating examples with the two in combination.

(38) a. **Mesteparten av** studentene har kommet på forelesning.
most-part.DEF of student.PL have come to lecture
b. ?**Av** studentene har **mesteparten** kommet på forelesning.
of student.DEF.PL have most-part.DEF come to lecture
c. *__Av__ studentene har kommet på forelesning **mesteparten.**
of student.DEF.PL have come to lecture most-part.DEF
d. ??Studentene har kommet på forelesning **mesteparten av dem**.
student.DEF.PL have come to lecture most-part.DEF of them

'Most of the students have come to the lecture.'

Even if *mesteparten* selects for mass nouns, the sentences above are acceptable as the term *studentene* (the students) might refer both to a specific pool of students, but also as a student mass: as mass nouns are capable of being pluralised, taking *waters* and *beers* as examples, the opposite, meaning massifying count nouns, is just as common, if not more common: using examples such as *a mass of students*, *a herd of cows*, and *a wave of librarians*. As such, one is no longer counting individual entities which can be counted, but rather an aggregate of members which together can be measured according to its size, and not specifically to its numbers (see Gillon (1999)).

That *mesteparten* caters to mass nouns is made clearer when paring it with a reflexive: *mesteparten* can be used with the reflexives *dem, det* and *den* (them, it-N and it-M/F). *Flesteparten,* even if having the same structure of quantifier+preposition+reflexive as *mesteparten*, can only be used with reflexive *dem:*

(39) a. Gulrøttene? Jeg har spist **mesteparten av dem**.
carrot-PL.DEF I have eaten most-part.DEF of them
b. Kaken? Jeg har spist **mesteparten av den**.
cake-DEF.M/F I have eaten most-part.DEF of it
c. Manifestet? Jeg har lest **mesteparten av det**.
manifesto.DEF.N I have read most-part.DEF of it

(40) a. Gulrøttene? Jeg har spist **flesteparten av dem**.
carrot-PL.DEF I have eaten most-part-PL.DEF of them
b.*Kaken? Jeg har spist **flesteparten av den**.
cake-DEF.M/F I have eaten most-part-PL.DEF of it
c.*Manifestet? Jeg har lest **flesteparten av det**.
manifesto-DEF.N I have read most-part-DEF.PL of it

These examples in (39) are quite interesting. First, example d) shows that it is possible for *mesteparten* to float in sentence final position, but that the acceptability is quite low. To do this, however, it must be part of a bigger phrase which includes quantificational *mesteparten*, prepositional *av*, and the reflexive *dem*. As *dem* refers to the DP *studentene* and not to the DP *forelesning*, the low acceptability in this case might be due

to the fact that the reflexive *dem* must be C-commanded by its DP, which is not achieved in this example. This also shows that *mesteparten av* cannot be an adverbial phrase, as adverbials are not dependant on C-command.

These examples show that a sentence in which the phrase *mesteparten av dem* is C-commanded by *studentene*, the acceptability is high:

e. Studentene kom **mesteparten av dem** på forelesning.
student.DEF.PL came most-part.DEF of them to lecture
f. ***Mesteparten av dem** studentene kom på forelesning.
most-part.DEF of them student.DEF.PL came to lecture

(41) a. *The students came **most of them** to the lecture.

Even if the English sentence (40f) is unacceptable, Bobaljik (2003) have shown that there are English sentences similar to the one in (41b) which are:

b. We have **all three of us** completed the assignment on time. (p. 23)
c.* **All three of us** we have completed the assignment on time.

Bobaljik describes sentences like (41c) to pose a problem for the Stranding Analysis as the quantifying phrase have clearly floated away from the DP it modifies, but as (41c) shows, the constituent phrase cannot occur prenominally. Examples (40e) and (40f) show that the exact same thing can be said for these examples in Norwegian. I will return to this problem for the stranding analysis in both languages in the last chapter.

These examples seem to implicate that either is *mesteparten av* an adverbial phrase where the quantifying adverb can be separated from its preposition in the sentence's derivation, or that there indeed is a mass/count selection for Norwegian quantifiers.

2.2.3 Variants of a*lle*

As shown above, one possible explanation for the different floating patterns for the partitive quantifier *mesteparten* over *flesteparten* is that *mesteparten* in fronted position functions as a quantifier but when floating in middle position functions as an adverb. As it has been established that *mesteparten* inhabits both of these functions in Norwegian, this idea has some attraction. As mentioned in the same paragraph, however, *mesteparten* is not alone in having this double function: *alt* has it too. In examples (35) above, floating *alt* was shown to be unacceptable. However, in this example, the sentence was written in future tense. In past tense, on the other hand, floating *alt* suddenly seems to be acceptable:

(42) a. **Alt** vannet har kokt.
all-N water.DEF.N has boiled

b. (*)Vannet har **alt** kokt.
water-DEF.N has all-N boiled

The parenthesis is here placed to show that while my informants first deemed the sentence perfectly acceptable, they withdrew their judgement when asked to judge *alt* in its quantifying sense. In contrast to *mesteparten*, which quantifier and adverbial interpretation both having a quantifying sense, the quantifier *alt* and the adverbial *alt* have two quite different interpretations: the former being a universal quantifying

expression, and the latter being an adverb sharing the same sense as another Norwegian adverb, *allerede* (already). As these two senses are completely different, this homophonous similarity is simply a coincidence. This contrariety in meaning, however, makes it a lot simpler to distinguish between the two structural uses of *alt* in comparison to *mesteparten*.

As seen in example (43), *alt* is acceptable in middle position as an adverb, but not as a quantifier. This adds to the hypothesis that mass quantifiers cannot float, as this position should be perfectly acceptable for both adverbials and quantifiers. As for the end position, which is famously available only to adverbials in both Norwegian and English, this seems to be the case here as well. These examples show that the end position is available for adverbial *alt,* but not for quantifying *alt*:

(43) a. Har vannet kokt **alt**?
have water-DEF boiled already
b.*Har vannet kokt **alt**?
have water-DEF boiled all

It appears that the seat of the end of the sentence is reserved for adverbial *alt*. There are, however, some cases where this hypothesis is shown to be wrong, and those are cases where *alt* appears together with *sammen*, which have the same meaning as English *together*. When the two are put together, however, the sense is similar to *all of it*, creating sentences like (c):

c. ?Det har blitt gjort **alt sammen**.
it has been done all-of-it
'It has all been done."

Opposed to the example in (43b), *alt* in sentence-final position in (c) has a quantificational meaning. Even if there is no visible preposition *av* in the phrase *alt sammen*, both its sense (all of it) and its floating position in the sentence is similar to the example *mesteparten av dem/den/det* in the subchapter above. There exist phrases using the universal quantifier+preposition+reflexive, such as *alt av det* (all of it) and *alle av dem* (all of them) but these are rarely used. Why this might be is not a question I will attempt to answer here, but the phrases share the same sense as *alt sammen*. It is also possible to use the phrase *alle sammen* in the end position in inaccusative sentences:

d. Har gjestene kommet **alle sammen**?
have guest-DEF.PL come all of-them.PL
'Have all of the guests arrived?'

The universal quantifiers *alle* and *alt* are not the only universal quantifiers which can be floated in sentence-final position: so can the universal quantifier *begge* (both). Similarly to *alle/alt*, *begge* is only able to float in sentence-final position as part of a more complex QP:

e. *De kom på festen **begge**.
they came to party-DEF.SG.M both
f. *De kom på festen **begge sammen**.
they came to party-DEF.SG.M both-together.
g. De kom på festen **begge to**.

they came to party-DEF.SG.M both two
'They came both of them to the party.'

This complex QP do not have the same components as *alle/alt sammen*, however, as **begge sammen* as a phrase is unacceptable. Instead, *begge* is paired with *to,* a numeral quantifier referring to the cardinality of the full set.
Interestingly enough, the universal mass quantifier *all,* which was shown, similarly to *alt,* to not be able to float in the middle position, cannot be paired up with either *sammen* or other variants of preposition+reflexive. As a result of this, it cannot float in end position in passive sentences, either with the reflexive or on its own:

e. *Har informasjonen blitt forstått **all sammen**?
have information-DEF been understood all of-it
f.*Har informasjonen blitt forstått **all**?
have information-DEF been understood all

What separates *all* from *alt* and *alle*, and for that sake *mesteparten* and *flesteparten* as well, cannot be that *all* is an adverb: if that was the case, it should be able to be seated in (d). It seems like the only difference between the quantifiers shown here is that *all* is the only quantifier which exclusively caters to mass nouns and abstract concepts, while the rest of them are able to modify count nouns to a lesser or larger extent. As will be seen in the next subchapter, *all* is not able to front in sentence-initial position either, which is factor that further separates the quantifier from the rest of those researched in this thesis.

2.4 Quantifier float in middle position

In this subchapter, I will confront the statement made by Cirillo (2009), which is that 'the rule in Swedish is that a quantifier can be stranded only between the first and second verbal elements in a clause, and if there is only one verbal element stranding is not possible' (p. 189). To illustrate this hypothesis using the universal quantifier *alla*, the Swedish variant of *alle*, he attempts to float it in between the transitive verb *undersöke* (examine) and the definite singular number DP *patienten* (the patient):

(44) a. **Alla** doktorerna undersöker patienten.
all-PL doctor-DEF.PL examine patient-DEF.SG.M

b.*Doktorerna undersöker **alla** patienten.
doctor-DEF.PL examine all-PL patient-DEF.SG.M (p. 189)

These same examples are presented here below in Norwegian. Notice the similar sentence structure and noun inflections:

(45) a. **Alle** legene undersøker pasienten.
all-PL doctor-DEF.PL.M examine patient-DEF.SG.M
b.??Legene undersøker **alle** pasienten.
doctor-DEF.PL.M examine all-PL patient-DEF.SG.M
'The doctors are all examining the patient.'

According to my informants, sentence (45) is either bad or questionable, but acceptable, so I will as such give it a ??-property. Some also commented that they revolted against it first but accepted it at the second read-through, thus giving the sentences something of a garden path-quality; a garden path-sentence being a sentence that initially is deemed unacceptable, but is deemed acceptable when reprocessing it (Ferreira & Henderson 1991, p. 2). Those that reject the sentence do so on the grounds that *alle* seems to be DP-initial to the DP *pasienten*, an interpretation which is impossible because *alle* craves a DP which selects for plurality, while *pasienten* have singular number. These examples using similar sentence structures show how floating when there is a mismatch in number between the subject and the direct object is generally seen as unacceptable:

c. ??Barna elsket **alle** kaninen.
children-DEF.PL.N loved all-PL rabbit-DEF.SG.M
'The children all loved the rabbit.'

d. ??Elevene avskydde **alle** læreren.
pupils-DEF.PL.M detested all-PL teacher-DEF.PL.M
'The pupils all detested the teacher.'

However, even if the sentence structure chosen by Cirillo in his example shows very low acceptance for the floating universal quantifier, that does not mean that the seat between a single verb and its complement is unacceptable for floating quantifiers in either Swedish and Norwegian. To show how this seat is acceptable, I will use two kinds of constructions: sentences with intransitive verbs where the complement is not a DP, and sentences with transitive verbs where the complement is a [+MASS] DP.

As an example of the first category, these sentences show the universal quantifier *alle* floating in the middle position between a single intransitive verbal element and (a) a PP and (b) an AP:

(46) a. Studentene kom **alle** på festen
student-DEF.PL.M came all-PL to party-DEF.SG.M
b. Professorene var **begge** brisne.
professor-DEF.PL.M were both tipsy-PL

Both these constructions are perfectly acceptable, even if the floating occurs between a single verbal element and its complement. The second sentence structure I will present as counterevidence are these below where the transitive single verbal element selects a mass noun as its complement:

c. Studentene likte **alle** vin.
student-DEF.PL.M liked all-PL wine-M
'The students all liked wine.'
d. Jentene ønsket **begge** informasjon.
girl-DEF.PL.M wanted both-PL information
'The girls both wanted information.'

These examples make use of *alle* and *begge*, quantifiers which are both universal, and firmly established by now to exclusively moderate [+PL]-DPs; mass nouns do not allow the singular and plural contrast (Gillon 1999, p. 22). One possible explanation given for why (46b-d) still have some acceptability, even if very low, is the possible garden path effect raised by the difference in number between the two arguments. This garden path effect would not have been there if not for the fact that Norwegian quantifiers have this

strong [+/-PL]-distinction in the first place. Swedish and Norwegian are V2-languages, meaning that the verb do not rest in v, but moves further on in the sentence to AgrS and C, so according to the stranding analysis this seat should be acceptable, which I have shown that it is. As such, I have here disproven the statement made by Cirillo (2009) that 'Swedish […] poses a challenge for the Stranding Analysis' (p. 190). The Stranding Analysis poses that the seat between the single verbal element and its complement should be available for floating quantifiers, and that it is: examples that counteract this simply do so because the languages' [+/-PL]-distinction acts as a confound.

2.4.1 Swedish sentence-final quantifier float

In subchapter 2.2.3 I discussed the floating nature of the phrase *alle/alt sammen. Alle sammen* has the same sense, usage and build of the Swedish phrase *allihop*, which Cirillo (2009) classifies as being an adverbial expression which he mentions to be comparable in usage to Dutch *allemaal* (p. 191). What Cirillo do not mention is that similarly to the Norwegian, which have two joint expressions denoting mass and gender, Swedish do too: *allihop(a)* and *altihop*. This latter expression is similar in usage and meaning to *alt sammen*. The same difference between the Swedish and the Norwegian expressions seems to be that in Swedish the two components are conjoined, whilst the Norwegian expressions are parted.

Cirillo frames this expression to being a challenge for the adverbial theory, as *allihop* seems to be seated in a position where the quantifier cannot float, being between a single verbal element and its complement. However, as I have established above, quantifiers <u>are</u> able to float in this position, which leaves this argument void.

An argument for *allihop(a)* being an adverbial that Cirillo does not mention is that *allihopa(a*), similarly to *alle sammen*, can be seated at the end of the sentence, as the Swedish web dictionary *synonymer.se* shows in these example sentences:

(47) a. **jag och min son** brukar sova i tält och ibland sover vi **allihopa** i husvagnen.
I and my son usually sleep in tent and sometimes sleep we all-of-us in caravan-DEF
'Me and my son usually sleep in a tent, and sometimes we all sleep in the caravan.'

b. **De** kommer i klump på morgonen och åker hem **allihopa** […] .
they come in group on morning-DEF and go home all-of-them
'They all come in groups in the morning and go home […]'

In this subchapter, I have shown that the evidence provided by Cirillo (2009) on Swedish quantifiers not being able to float between a single verbal element and its complement is faulty. This floating position is perfectly available in both Norwegian and Swedish, as I have shown using both transitive and intransitive verbs to show that what decides the acceptability of this position is not the number of verbal elements in the sentence, or for that sake, the transitivity of the verb. As Norwegian and Swedish quantifiers are inflected due to number, gender and mass, a garden path effect is created when there is a mismatch in number between the subject modified by the quantifier and the following direct object. This creates a confound not accounted for in Cirillo's evidence and removes this specific type of quantifier float in Swedish and Norwegian as being an evidence against either the Stranding Analysis. As the adverbials *alle sammen/allihop* is shown to

float in the same middle position open to quantifiers, this also removes the obstacle to the Adverbial Analysis.

2.5 Fronted quantifier floating

Previously in this chapter I illustrated how Norwegian quantifiers seem to differ from other established accounts of floating quantifiers, where one example is how partitives show floating behaviours as well, even if this differ somewhat from that of universal quantifier float. In this section, I will exhibit another position Norwegian quantifiers can inhabit which e.g. English quantifiers cannot: sentence-initial position, with the subject it modifies being seated in the middle position. This floating behaviour is thus the opposite of what we deem as classic floating behaviour, so from this point onward I will call this phenomenon *reverse quantifier float*. Faarlund et. al (1997)give several examples of this kind of floating behaviour in Norwegian. In these examples, the quantifier is seated in sentence initial position whilst the DP it modifies is seated either in between first and the second verbal element, or when there is only one verbal element, in between the verbal element and its complement. As established previously, this middle position is the same middle position where Norwegian quantifiers prefer to float- Norwegian being a V2-language. This makes it seem like the DP and the quantifier have simply swapped positions. To illustrate this, I will first show two of the examples on quantifier float taken from Faarlund et. al (1997) that show reverse floating: the original examples in (a) and (b), and my examples where the DP and their quantifier have been swapped back to the more familiar structure for comparison:

(48) a. **Alle** hadde **dei** reist seg.
all-PL had they raised themselves
'All of them had stood up.'
b. **Begge** måtte **dei** bøte med livet. (p. 921)
both must they pay with life-DEF.N
'They both had to pay with their lives.'

c) **Dei** hadde **alle** reist seg.
they had all-PL raised themselves
d) **Dei** måtte **begge** bøte med livet.
they must both pay with life-DEF.N

Reverse floating is also found in a well-known Norwegian children's song called *Ti små indianere* (ten little Indians)the author of which is unknown.

(49) **Alle** så hadde **de** fjær på huet
all-PL so had they feathers on head-DEF

alle så hadde **de** pil og bue
all-PL so had they arrow and bow

alle så var **de** så stolte og krye
all-PL so were they so noble and proud

What separates this excerpt from the literary examples shown in (48) above is that whilst in the first examples the only element separating the quantifier from its DP is a single verbal element, in the children's song the two are separated by two elements: *så* and a verbal element. *Så* is a Norwegian word with a plethora of possible meanings, one of the more common as a conjunction (meaning *then*). Given this interpretation, the quantifier would be able to float in a position before a conjunction in an embedded clause, an outcome which would be surprising indeed. However, a less common but still totally acceptable usage of *så* is as an adverbial with no real lexical meaning. Therefore, the adverbial is probably present only to give the stanza rhythm.

Faarlund et. al also show how the same construction used for reverse quantification is not exclusive to quantifiers and DP subjects, but can be used for the DP subjects and reflexives as well, where the reflexive, typically the anaphor, plays the part of the antecedent:

e) **Selv** har **han** ingen ord. (Bjørnstad, 1977)
self has he no words
'He himself has no words.'

This phenomenon is also seen in Dutch, as reported by Hoeksema (1996), who calls this phenomenon *topicalized anaphora*.

The reverse quantifying construction does not, for some reason, work with partitives. This unacceptability is shown in example (50) using the partitive *flesteparten*:

(50) a. *__Flesteparten__ hadde __de__ reist seg
most-part.DEF.PL had they raised themselves
b. *__Flesteparten__ måtte __de__ bøte med livet
most-part.DEF.PL must they pay with life-DEF.

According to my informants, even if the construction universalQ+verbal+DP is perfectly acceptable, it is found to be old-fashioned. But even if the construction is not widely used in everyday life, these examples still show that it is perfectly possible in Norwegian. In English, however, this do not work at all. But that does not mean that Norwegian is unique in that it allows this, as the examples from Dutch and German show.

Above, I have shown how Norwegian allows what I call *reverse quantification*, where the quantifier and its DP have switched places so that it seems like it is the DP which is stranded. Apart from the one example from a Norwegian children's song, the DP in these instances seems only to be able to strand between either the first or second verbal element, or between a single verbal element and its complement, which is the same middle field seat available for fronted quantifiers. This form of floating behaviour in quantifiers seems only to work with universal quantifiers such as *alle* and *begge*, but the same construction including a seemingly stranded DP can also be used with reflexive *sjølv/selv* (self). Reverse quantification, as well as topicalized anaphora, is seen it other languages such as Dutch and German as well, which is illustrated by Hoeksema (1996). In these examples, the apparently floated DPs are all seated in the same middle position as the Norwegian DPs. This position seems to turn the table between the quantifier and its DP, in that instead of the DP c-commanding the quantifier, the quantifier c-commands the whole clause.

2.6 Prevalence for pronouns

Looking at the examples showing reverse quantification above, there is one element that is immediately striking: this sort of floating is only acceptable when the involved DP is a pronoun, both in Norwegian and the other Germanic languages. In Standard English as well as other cases of classic quantifier float, as previously established, quantifiers only float when modifying a lexical noun. In Norwegian, on the other hand, quantifiers seem all over to float a lot easier when the DP they modify is a pronoun. Noting not only these examples above, but the large majority of examples given on Norwegian quantifiers throughout this chapter, the reader will see that the large majority of all examples of acceptable occurrences of quantifier float in Norwegian occur when the subject is a pronoun. A direct example of this prevalence can be taken from the examples of quantifier float found in Faarlund et. al (1997) as well: here, out of 19 examples showing floating quantifiers, 17 examples make use of pronouns and only two of them lexical nouns. What can be taken from this is even if floating combined with lexical DPs is possible, it has all over a lower acceptance level than floating combined with pronoun DP.

2.6.1 Partitive doubling

This prevalence for pronouns in accounts of Norwegian quantifier float is comparable to the accounts of so-called partitive doubling in Appalachian and Icelandic, a phenomenon covered by Wood, Sigurðsson & Zanuttini (2015). As I mentioned in chapter 1, the examples of partitive doubling covered in this study exclusively work when the quantifiers modify pronouns. This makes a parallel to the Norwegian examples above. In Icelandic, however, this construction only works when the referential pronoun in question have genitive case, and not dative case:

(51) a. **Við** getum [**flest okkar**] gert þetta.
we.NOM can [most.N.NOM us.GEN] do this
'We can most of us do this.'

b. ?? **Við** getum [**flest af okkur**] gert þetta.
we.NOM can [most.N.NOM of us.DAT] do this
'We can most of us do this.' (p. 218)

Most Norwegian dialects do not have dative case, so here there is no such distinction present:[5] meaning that apart from the genitive/dative difference, these Icelandic sentences are consistent with my Norwegian examples. To illustrate this construction's prevalent affinity with pronouns, the authors show this by putting lexical nouns and pronouns in both subject DP position and anaphoric position within the partitive PP phrase:

(52) a. *__My friends__ won't __any of__ {__them/my friends__} want to go out. (p. 218, added bold)

[5] A small number of Norwegian dialects do still have dative case, however. As such, seeing if there exists a similar distinction here as there is in Icelandic would be an interesting idea for a research project.

In Norwegian, having lexical nouns in both subject DP position and in the partitive PP phrase is unacceptable as well. However, contrary to Icelandic and AE, having a lexical subject DP and a pronoun in the partitive PP phrase in general is allowed:

(53) b. **Vennene** **mine** vil ikke **noen av dem** gå ut.
friend-DEF.PL.M mine want not any of them go out
'None of my friends want to go out.'

c. *__Vennene__ **mine** vil ikke **noen av vennene mine** gå ut.
friend-DEF.PL.M mine want not any of friends mine go out

As can be seen from these comparisons, there is a strong similarity between the reported data on floating partitives in Appalachian English and Icelandic on one hand and Norwegian on the other. The first similarity is the fact that partitive quantifiers with the structure partitiveQ+PP+reflexive is generally allowed to float in middle position, which is contrary to standard English, which only allows this in certain cases.

The second similarity is the prevalence for pronouns; however, this also marks one of the differences that separates Norwegian from the two. In AE and Icelandic, the structure only works if the subject DP is a pronoun. In Norwegian, all examples involving floating partitives in general work *better* when the subject DP is a pronoun, but lexical nouns are allowed in this position as well even if they are not as common. Related to this same point, Norwegian only allows reflexive DPs to float in the partitive phrase, which is the same as what is allowed in these phrases in Icelandic and AA.

In this subchapter, I have shown how Norwegian floating quantifiers show similar floating behaviours to Dutch and German in that universal quantifiers are allowed to float in sentence-initial position with the DP it moderates being seemingly floated in middle position. Norwegian partitive quantifiers also share mostly the same floating behaviours as what Wood, Sigurðsson, & Zanuttini (2015) report for Icelandic and Appalachian English: the partitive quantifier phrase structures are similar, their acceptable floating position is the same, and they all share a prevalence for pronouns. What separates Norwegian from the two is that Norwegian allows this sentence structure with lexical nouns in the subject DP position too; but the prevalence for pronouns in this position is still markedly more acceptable.

One important factor to note on the theme of prevalent subject pronouns when showing Norwegian quantifier float is that all instances of Norwegian quantifier float seem to work better with pronouns in subject position, no matter the type of quantifier (universal or partitive).

2.7 Floating position of Norwegian FQs

In the previous subchapters, I have shown how the major points of how the behaviour of Norwegian floating quantifiers differ from that of English floating quantifiers, except from one point where I repudiated a statement made by Cirillo (2009) on how Swedish (and thus Scandinavian) quantifiers seemingly differed from the literature on floating quantifiers, which I showed to be erratic due to an unforeseen confound. In this subchapter I will summarise the possible floating positions of Norwegian floating quantifiers which I have yet not covered: namely how Norwegian quantifiers, both universal and partitive, float in three types of sentence structures: sentences with several verbal elements, negated sentences, and embedded clauses. To compare, I will show the possible floating positions of the corresponding English sentences. Then, concluding my data chapter, I will summarise my finds for how Norwegian FQs deviate from English FQs - before moving forward with the possible analyses which will attempt to explain why they do. In all example sentences below, I will use ^ to mark a possible floating position, and * to mark an unacceptable floating position. One (?) or two (??) question marks will be used when there is some ambivalence concerning the acceptability of the construction. As Norwegian quantifiers have been shown to float better when paired with a pronoun DP, all the examples below will have a pronoun as its subject. When presenting the data, each category will first contain examples of universal quantifiers (*alle/alle sammen*), then of partitive quantifier phrases (*flesteparten av dem*). When there is a ^ on the end of a sentence using a universal quantifier, this corresponds to universal *alle sammen*. When there is a ^ at the beginning of the sentence, this equals reverse quantification with the pronoun situated between the first verbal element and the element that follows.

The corresponding English sentences will follow each rubric. As English floating quantifiers are the most acceptable when paired with a lexical noun, a suitable lexical noun will be provided for these sentences to correspond with the Norwegian pronouns. The lack of * the beginning of the English example indicate that reverse quantification is unacceptable. I will supplement Norwegian universal *alle* with English *all* when discussing universal quantifier floating, but as English partitive quantifiers do not show floating behaviours, corresponding English sentences will not be provided for these cases, as it is already understood that for English, none of these seats are available.

2.7.1 Main clauses with one or more verbal elements

(54) a. ^ De * kom ^ på festen ^
they came to party-DEF.SG.M
b. ^ De * har ^ kommet * på festen ^
they have come to party-DEF.SG.M
c. ? De * har ^ kunnet * komme * på festen ^
they have could come to party-DEF.SG.M
d.?? De * burde ^ ha * kunnet * komme * på festen ^
they should have could come to party-DEF.SG.M
e. * The students ? should ^ have ^ been ?? coming * to the party *

What can be drawn from these examples is that in main clauses with several verbal elements, Norwegian universal quantifiers float in sentence-initial position, in sentence-

final position, and in the middle field seated after the first verbal element. However, it is worth noting that the acceptability of fronted universal quantifiers drastically drop when more sentential elements are added to the string.

As for the floating behaviours of partitive *flesteparten,* the examples below show that the seats available for partitives are a lot scarcer:

(55) a. * De * kom ^ på festen *
they came to party-DEF.SG.M
b. * De * har ^ kommet * på festen *
they have come to party-DEF.SG.M
c. * De * har ^ kunnet * komme * på festen *
they have could come to party-DEF.SG.M
d. * De * burde ^ ha * kunnet * komme * på festen *
they should have could come to party-DEF.SG.M

The partitive quantifying phrase *flesteparten av dem,* contrary to universal *alle*, can only be floated in the middle field. None of its available positions change according to the length of the sentence, which we see with fronted *alle.*

2.7.2 Negation and adverbials

The most common Norwegian negational adverbial is *ikke*, the equivalent of English *not*. In main clauses, *ikke* is placed in the middle field after the first verbal element – the apparent same position as the Norwegian floating quantifier. When both the negator *ikke* and the floating universal quantifier *alle* is used together, the quantifier has these floating positions:

(56) a. ^ De * kom * ikke ^ på festen ^
they came not to party-DEF.SG.M
b. ^ De * har * ikke ^ kommet * på festen ^
they have not come to party-DEF.SG.M
c.?? De * har * ikke ^ kunnet * komme * på festen ^
they have not could come to party-DEF.SG.M
d. * De * burde * ikke ^ ha * kunnet * komme * på festen ^
they should not have could come to party-DEF.SG.M

These sentences show that even if the negation *ikke* seems to occupy the same seat as the floating quantifier, this is not so. The universal quantifier is still acceptable when floated in middle position, but now in between the adverbial and the complement/second verbal element. This is still the only acceptable seat in the middle field for the Norwegian FQ. It should again be noted that the fronted quantifier gets more unacceptable when the sentence gets longer. English shares this same middle position as the Norwegian universal quantifier:

(57) * The students ^ should * not ^ have * come * to the party. *

The phrase *flesteparten av dem* cannot be used at all in combination with the negative marker *ikke,* for the simple reason that the phrase (the equivalent of the English *not most of them*) does not make sense. Therefore, the examples below instead make use of the adverbial *åpenbart* (obviously):

(58) e. * De * burde ^ åpenbart * ha * kunnet * komme * på festen *
they should obviously have could come to party-DEF.SG.M

It has already been established that partitives do not float in sentence-initial or sentence-final position, but this example shows that when there is an adverbial present, the Norwegian partitive quantifier floats in the middle position in between the first verbal element and the adverbial element. This separates the partitive from the universal, which is floated *after* the adverbial element and before the verbal complement.

2.7.3 Embedded clauses

The only mention I can find that mention quantifier float in embedded clauses in Scandinavian languages is provided in a footnote by Cirillo (2009), who compares is original sentence using a Swedish floating quantifier with a sentence similar sentence where the DP and its quantifier are both part of a subordinate clause which is introduced by the complementizer *att* (that). Here, he has placed the quantifier in the same seat as in the main clause in example (a), which is in between the first and second verbal element:

(59) a. Doktorerna skulle alla ha undersökt patienten.
doctors the shall all have examined patient the
b. *Jag tror att doktorerna skulle alla ha undersøkt patienten.
I believe that doctors the shall all have examined patient the
(p. 192, original glossary)

Same as in example (55), I will first show the possible floating positions for the universal quantifier. For the following embedded clause examples, I will start the sentences with the Norwegian complementizer *om* (if):

(60) a. […] om de ^ skulle * ha * kommet * på festen ^
if they should have come to party-DEF.SG.M

These examples show that Cirillo's example is correct: the quantifier cannot be floated between the first and second verbal element in embedded clauses. In addition to its natural seat to the left of the DP, it can also, however, be floated between the DP and the first verbal element, and at the end of the sentence as *alle sammen*. When negational *ikke* is added to the equation, this is the result:

b. […] om de * ikke ^ skulle * ha * kommet * på festen ^
if they not should have come to party-DEF.SG.M

This shows that when there is an adverbial present in an embedded clause, the universal quantifier will float in the middle position between the adverbial and the first verbal element, and not directly following the DP.

c. […] if the students ^ were ^ not ^ to come to the party *

For partitive *flesteparten av dem*, example (xa) shows its floating positions in a regular embedded clause, whilst example (xb) shows its floating positions in an embedded clause with an adverbial element as well:

(61) a. […] om de * skulle * ha * kommet * på festen *
if they should have come to party-DEF.SG.M

b. […] om de * åpenbart * skulle * ha * kommet * på festen *
if they obviously should have come to party-DEF.SG.M

As can be deduced, there are not really any good positions to float a partitive phrase in an embedded clause, either with or without an adverbial, which separates these examples quite starkly from the examples using universal quantifiers in (56).

In this subchapter, I have shown that Norwegian universal quantifiers, when floated in the middle position, is seated either between the first and the second verbal element, or between the one finite verb and its complement. When there is a negational element present, which in main clauses is always seated between the first and second verbal element or the finite verb and its complement (which on the surface of the sentence seems to be the same location as the floated quantifier), the universal FQ is floated in the middle position between the negator and the second verbal element or complement.

The partitive FQ, on the other hand, can be floated in the middle position between the adverbial and the complement or second verbal element. This is another point that separates the partitive from the universal quantifier, which comes in addition to partitive quantifiers not being able to neither be fronted in sentence-initial or sentence-final position, which the universal quantifier seemingly can.

When it comes to embedded clauses, Norwegian universal FQs seem to have two possible floating positions: in middle position between the DP and the first verbal element, and in sentence-final position. When negational *ikke* is added to the mix, the only position in the middle area available to the universal quantifier is between the negator and the first verbal element. The partitive quantifier phrase, on the other hand, seem not to be able to float in embedded clauses at all.

2.8 Summary

I started this chapter by giving an overview on the literature on Norwegian and Scandinavian floating quantifiers, which has proved itself to not only be scarce, but also conflicting and contradictory to all other literature written on this subject within the relatively extensive literate on the subject of floating quantifiers. With this as a starting point, I found it pertinent to first of all answer the question if Norwegian floating quantifiers can be said to exist. To this I can now safely answer that they do – but they also display floating behaviours which are quite different from both other literature on the subject.

The data presented in this chapter have been given with two goals in mind: first, to establish the possible floating positions of the Norwegian floated quantifier; second, to pinpoint both the characteristics that Norwegian FQs share with English FQs and the established literature on the subject as well as the qualities that distinguishes Norwegian FQs from other researched languages.

In this chapter I have discovered that Norwegian quantifiers can indeed be floated and seemingly without a semantic difference between sentences where quantifiers are in floated or pre-DP position, which is the same as have been reported for (most of) English floating quantifiers. Another feature that Norwegian FQs share with English is that the same middle position is available to FQs in both languages, which is the position following the finite verb. For Norwegian, this is the case whether the element following the finite verb is another verbal element or a verbal complement, which is on par with the predictions of the Stranding Analysis.

However, I have also discovered a number of qualities that distinguishes Norwegian FQs from English FQs. Firstly, Norwegian universal quantifiers are not alone in being able to float; so are partitive complex QPs. Secondly, Norwegian universal quantifiers are capable of floating in both sentence-initial and sentence-final position, the latter of which as part of a complex QP. Both of these positions are closed to English floating quantifiers. Thirdly, Norwegian quantifiers cannot be floated in embedded clauses at all, which English quantifiers can. Lastly, Norwegian quantifiers can only float when the DP they have scope over is a pronoun. This distinguishes Norwegian FQs quite distinctly from standard English FQs, as the latter as a rule only float when the DP they have scope over is a lexical noun.

In the chapter that follows, I will attempt to delve deeper into these qualities that distinguishes Norwegian FQs from English FQs, as well as drawing lines to similar phenomena in other researched languages where this is possible.

3 Analysis

3.1 Norwegian syntactic structures

In the first chapter of thesis, I made an account of what I deem to be the most prominent and relevant hypotheses on the field of floating quantifiers; then, hypotheses which see to explain issues which seem to break with the prominent views on the workings of the floating quantifier phenomenon. These I deem relevant to the interpretation of the seemingly erratic behaviour of Norwegian FQs.

In this short subchapter, I will account for the tree structures and phrase projections I later will use to analyse the data collected on Norwegian quantifiers. As a matter of course, I will seek to use the structures available which will present the available material in as clear a manner as possible, without including phrase projections that are not directly relevant for this level of analysis and as such might only add confusion to the ranks.

Even if both English and Norwegian are Germanic languages and follows as SVO word order, the syntactic structures of English and Norwegian are not the same. The main reason for this is that Norwegian, contrary to English, is a V2-language; meaning that the 'finite verb […] in a main clause is moved out of its canonical position into second position in the clause' (Radford 2006, p. 28). There are two quite notable differences this factor contributes to when analysing English and Norwegian main clauses. The first is that while English subject DPs (according to Radford 2006) are moved out of [SPEC, vP] to rest in the [Spec, TP]-position, Norwegian subject DPs move from [Spec, TP] to [Spec, CP]-position in main clauses. The other difference is that the finite verb, which in English moves to T (the head position of TP), in Norwegian main clauses moves to C, the head position of CP. This Norwegian have in common with other modern Scandinavian languages such as Danish and Swedish, which is illustrated by Holmberg & Platzack (1995, p. 75. Disregard original numbering):

(62)

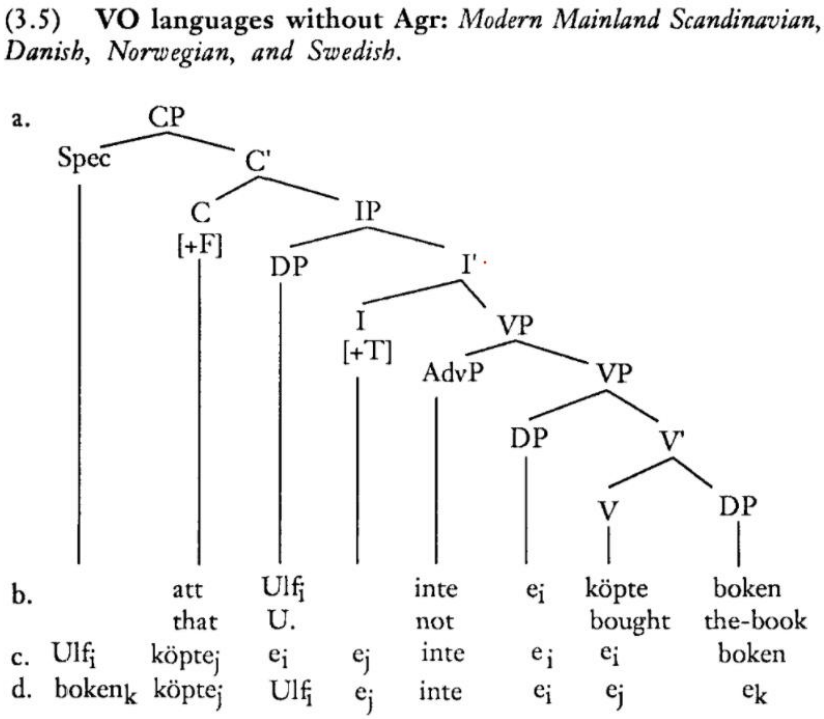

FIGURE 4 HOLMBERG & PLATZACK (1995, P. 75). DISREGARD ORIGINAL NUMBERING.

As can be seen from the authors' description of the example above, the modern Scandinavian languages (including Norwegian) do not have an Agreement Phrase, which English, on the other hand, do. This is because the modern Scandinavian languages do not have subject-verb agreement. In this thesis forward, therefore, I will not include the Agreement Phrase in English when comparing the two languages.

In example (xa), another thing to note is that the authors do not include a vP shell analysis and shows the adverbial negator as adjuncted to an extension of VP.

I will use this model above when comparing Norwegian sentences to English as the similarities of the structures makes this comparison easier. However, the above analysis is not at all the only possible analysis of Norwegian sentence structures. One other possible and well-used structure used for tree analyses of Norwegian is provided by Åfarli & Eide (2003). According to the authors, Norwegian adverbial phrases are left-adjoined to [T'] as a projection between the DP trace and T:

(63)

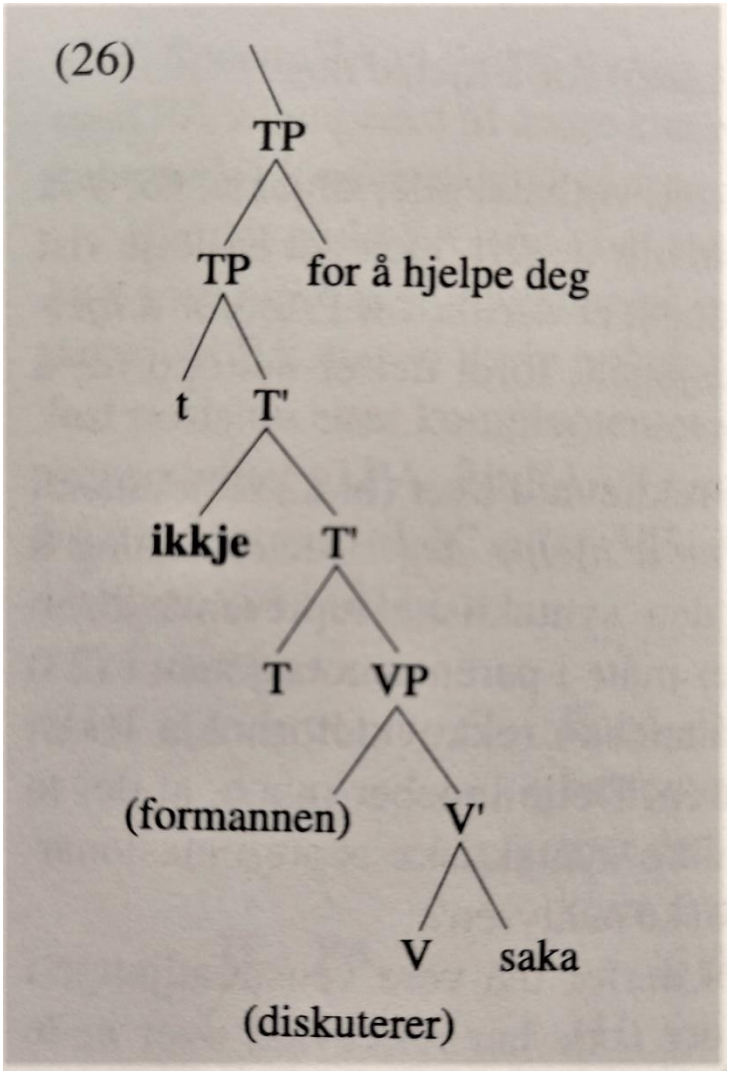

FIGURE 5 ÅFARLI & EIDE (2003, P. 98)

The corresponding glossary for the sentence in (63) is given in (64):

(64) Formannen diskuterer ikkje saka for å hjelpe deg.
foreman-DEF.SG.M discuss not case-DEF.SG.F for to help you
'The foreman is not discussing this case to help you."

According to this manner of analysis, in cases with several adverbial elements the [T']-projection is extended into new, daughtering [T']-projections. In cases where adverbials are placed both before and after the subject, however, adverbials are left-adjoined to [TP]. Within the scope of this thesis, I will not in any way see any of these possible analyses as more correct than the other. By using the model presented by Holmberg & Platzack, I will present the AdvP/NegP as being an extension of VP. The reason for why I will first and foremost use the former tree structure and not the latter, as previously mentioned, is that it facilitates the comparison with English when discussing possible floating positions for floating quantifiers.

For the English tree structures, I will use this model put forward by Radford (2006), which I introduced in the literature chapter:

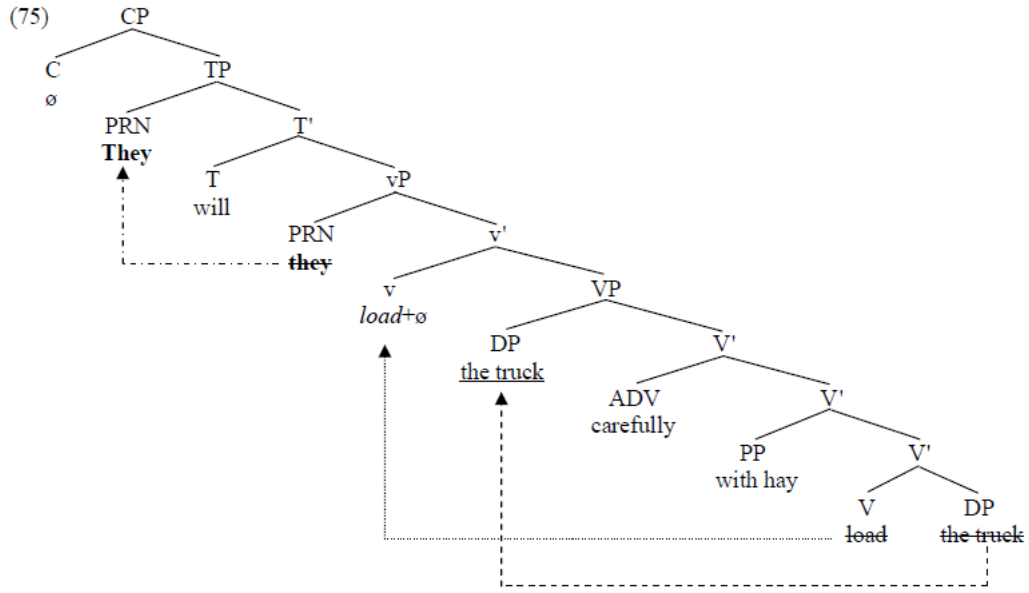

FIGURE 6 (P. 226)

3.1.2 Syntax of embedded clauses

As can be seen from the model by Holmberg& Platzack (1995) in example (62), in Norwegian embedded clauses the complementizer occupies the head position of CP, thus blocking CP completely from the subject DP and the finite verb, which would otherwise occupy [Spec, C] and [C]. As such, the subject DP is left stranded in [Spec, TP] and the finite verb in [T], the same positions as English subject DPs and finite verbs are stranded in both main and embedded clauses. This means that in Norwegian embedded clauses, there are fewer available positions for the DP to move from, which therefore leaves fewer possible positions for quantifiers according to the Stranding Analysis. What is noticeable in embedded clauses is that Norwegian floating quantifiers cannot float where they have been able to float, according to the Stranding Theory, which is following the finite verb; in other words, the same position as their floating position in main clauses. As shown in chapter 2, however, Norwegian quantifiers can still seemingly float away from the DP-initial position and rest following the DP and initiating the finite verb. This I will return to later in this chapter.

3.2 The mysteries of the Norwegian FQ

In chapter 2, I first laid out a series of noted and apparent mysteries concerning the workings of the Norwegian floated quantifier. Through the research presented therein, I discovered that the qualities that Norwegian floating quantifiers share with its English counterparts is that it indeed appears to float, and that the same middle position, in between either the first verbal element and its complement, is an available floating position for the quantifier in both languages. This similarity seems to indicate that the two languages share the same phenomenon which obeys the same rules.

However, the research shows that even if Norwegian FQs have this in common with English FQs, they show several qualities that they do not share with English FQs at all. These differing qualities which I will explore further in this chapter are a) that partitive quantifying phrases have the ability to float in addition to universal quantifiers, the latter of which is the only floatable quantifier in standard English; b) there are two middle positions available to Norwegian quantifiers, one only available to universal quantifiers and one only available to partitives; c) in addition to the middle position(s), Norwegian quantifiers are also able to float in sentence-initial and sentence-final position, neither of which are available to English quantifiers; and d) Norwegian quantifiers are almost all of them only available in floating position when the DP they have scope over is a pronoun. In standard English, quantifiers are exclusively only able to float when the pronoun they have scope over is a lexical noun.

In the following pages, I will attempt to probe at the workings behind these differences in an attempt to discover more about the Norwegian floating quantifier phenomenon and just what separates these from their English counterparts. This I will do in the same order of succession as listed above.

3.2.1 The middle position

As to the possible floating positions of Norwegian quantifiers, I have previously established that contrary to the evidence provided by Cirillo (2009, pp. 189-192), Scandinavian universal quantifiers float not only in the middle field between the first and second verbal element in main clauses, but also between the finite verb and its complement. I made the conclusion that this misleading statement was not deducted from wrongful evidence, but by the unforeseen confound made by the conflicting agreement made when the quantifier modifying the subject DP was placed in the seat before the object DP, which created a garden path-effect. This data concludes that the middle position mentioned above is the only available middle position for Norwegian quantifiers in a main clause, which is what is expected by the Stranding Analysis as there is only one available position in the middle position for stranded DP. Which position this is in the chain, however, is not that obvious.

I have already established that whichever of the two mentioned models on Scandinavian languages one chooses to use, they have two things in common: in main clauses subject DPs move to [Spec, CP] and finite verbs to [C]; and in embedded clauses, the conjunction is seated in [C], which blocks both the subject DP and the finite verb to move past this position, which seats them in [Spec, TP] and [V]. When viewing this from the vantage point of the Stranding Analysis, ordinary main clauses without adverbial elements seems to have two possible positions in the middle field available for a stranded quantifier, namely [Spec, TP] and [Spec, VP]:

(65) [CP [DP De] [C'[C gikk] [TP [QP (alle) ~~de~~] [T' [T ~~gikk~~] [VP [QP (alle) ~~de~~] [V' [V ~~gå~~] [PP på universitetet]

However, when there is an adverb present, the stranding analysis leaves only one seat in the middle position available for the floated quantifier, namely the specifier node of the extended [VP] (or [vP]):

(66) [CP [DP De] [C' [C gikk] [TP [DP ~~de~~] [T' [T ~~gikk~~] [VP [AdvP ikke] [VP [QP alle ~~de~~] [V ~~gå~~] [PP på universitet]

3.2.2 Partitives in middle position

In chapter 2 I showed how Norwegian partitive quantifiers also seem to be able to float away from their respective DPs. These quantifiers seem in general to be a lot more acceptable when they are part of complex quantifying expressions such as *noen av dem* (some of them), making a complex quantifying phrase like this:

(67) a. [QP[Q noen] [PP [P av] [DP dem]

These partitive quantifying phrases show agreement with the subject DP which they are in a seemingly anaphoric relationship with. This subject DP is almost always a pronoun:

b. **De** hadde **noen av dem** matpakke med seg.

they had some of them food-package-SG.M with themselves

'Some of them brought a lunchbox.' (Faarlund et. al 1997, p. 921)

These constructions, apart from the fact that these expressions are partitive and not universal, are similar to the English examples shown by Bobaljik (2003) on seemingly floated complex quantifying expressions in English:

c. We have **all three of us** completed the assignment on time. (p. 23, original bald)

In Icelandic on the other hand, as reported by Wood, Sigurðsson & Zanuttini (2015), a similar phenomenon occurs with partitives, similarly to Norwegian:

d. **Við** getum **[flest okkar**] gert þetta.

we.NOM can [most.N.NOM us.GEN] do this

'We can most of us do this.' (p. 218, original glossary)

However, they do report that in Icelandic the QP is not acceptable combined with an open PP such as in English and Norwegian, but that even if this is not spelled out, that does not mean that it is not there (p. 218).

What these complex quantifying phrases have in common is that they all seem to float in middle position, the same as that of the universal quantifier discussed above. In chapter two, I showed how this position for these seemingly floated quantifying expressions in main clauses are between the first and second verbal element or between the finite verb and its complement, which is the same as the middle floating position for universal floating quantifiers. When there is an adverbial following the finite verb, however, the partitive quantifying expression is placed in between the finite verb and the adverbial, which is a

separate position than that held by the universal floating quantifier, which is following the adverbial and introducing the second verbal element. Besides other relevant factors, this seems to be a major difference separating the floating universals from the floating partitives. What is to be noted as well is that these quantifying expressions, contrary to the data noted on universal quantifiers, cannot float when there is only one verbal element.

The placement of these quantifying phrases also cannot be explained by the Stranding Analysis, as similarly to the English and Icelandic examples discussed, these complex expression and the subject DP they show agreement with cannot have formed an underlying constituent in the first place:

(68) *__De__ **[flesteparten av dem]** kunne ikke komme på festen.

They most-part.DEF.PL of them could not come to party.DEF.M

'Most of them could not come to the party.'

This means that even though it seems like the expression is seated in [Spec, TP] and that the subject DP have successive-cyclically moved to its seat in [Spec, CP] and left the complex expression behind, this cannot be the case as they were never a constituent in the first place.

Following the model for analysis of Norwegian sentence structures by Åfarli & Eide where adverbials are adjuncted to T, this would give the phrase a possible seat. But as adverbials do not show subject agreement, the adverbial analysis cannot explain either what is going on.

3.2.3 Embedded clauses

As shown in chapter 2 on floating positions in embedded clauses, there is only one middle field position available for Norwegian quantifiers in these sentences. This is different from the one in main clauses; where the latter is placed between the first and second verb/verbal complement, the floating position in embedded clauses is between the subject DP and the first verbal element, whether there is only verb and a complement or a string of verb. This follows unless there is an adverbial present, in which case the adverbial follows the subject DP and the quantifier follows the adverbial. Contrary to main clauses where there are no adverbials, however, the [Spec, VP] seems to be the only available seat for a floated quantifier whether there is an adverbial present or not. This position is however impossible, as it leaves the finite verb unable to acquire tense:

(69) *[CP [DP ø] [C' [C om] [TP [DP de] [T' [T ø] [VP [NegP ikke] [VP [QP alle ~~de~~] [V' [V gå] [PP på universitetet]

Whether one chooses to analyse the quantifier in the sentence above as a stranded quantifier or as an adverbial makes no difference. Therefore, the only option to explain this is that Norwegian do not allow floated quantifiers in embedded clauses at all, and that the structure where quantifiers follow after the DP instead of introducing it in embedded clauses is because the type of clause for some reason only allows this DP structure. When using the analysis by Åfarli & Eide (2018) where adverbials are adjoined to TP, this is the result:

(70) [CP [DP ø] [C' [C om] [TP [QP de alle] [T' [NegP ikke] [T' [T gikk] [VP [QP ~~de alle~~] [V ~~gå~~] [PP på universitetet]

The phenomena above seems to be a form of *Q-Pro Flip* (quantifier pronoun flip), which Tiskin (2016) defines as 'the name for cases where the quantifier and the restrictor, despite of the inverse order, form a constituent' (p. 317). This phenomenon, which may look like quantifier float, is seen in other languages as well. One of these is English, which have constructions like (71):

(71) I gave [them both] a hug and left. (Tiskin 2016, p. 317)

However, according to Brisson (1998), Q-Pro Flip only occurs to pronouns assigned with accusative case (Brisson 1998, pp. 239-240), which clearly is not the case in Norwegian. I will not go into further detail on this topic in this thesis, but it is an interesting phenomena that should be explored through further research.

Even if one accept these kinds of sentences as being a form of Q-Pro Flip, this still leaves the question of why Norwegian embedded clauses do not allow floating quantifiers, as there is a DP trace in [Spec, VP] that the stranding analysis predicts that a quantifier should be able to get stranded in. This I have shown is unacceptable, which Cirillo (2009) also shows for Swedish subordinate clauses. Cirillo proposes for Swedish that the reason for why the Stranding Analysis wrongly predicts unacceptable positions for floating quantifiers is that 'the non-finite verbal elements in a clause form a cluster that is impenetrable to a stranded quantifier' (p. 192). However, he defends this stand not only based on the behaviour of quantifiers in embedded clauses, but on the evidence on the presumed unacceptable floating of Swedish quantifiers following non-finite verbs in main clauses, which I earlier proved not to be the case. This does not mean that he is not correct in assuming that non-finite verbal elements in embedded clauses form an impenetrable cluster for floating quantifiers, but this claim is quite weakened by the fact that this only happens in embedded clauses and not in main clauses.

Concerning complex quantifying expressions, I showed in chapter 2 that these are not able to float in embedded clauses at all. Above I argued for universal quantifiers not being able to float in embedded clauses either, as their apparent floating behaviour more likely is a form of Q-Float Flip. Embedded clauses thus show that despite their many differences, neither universal quantifiers nor partitive quantifying expressions can float in these circumstances. For the latter, this is interesting to note as it has already been shown that Norwegian universals and partitives do not share the same middle seat floating position. However, according to the Stranding theory, Norwegian universal quantifiers *should* be able to float in this position. This proves an interesting point that seems to separate Norwegian floating quantifiers from floating quantifiers in other researched languages.

3.3 The variants of floated *alle*

In section 3.2, I approached one of the arguments of Sportiche (1988) in support of the Stranding Analysis, which is that in languages where there is a gender and/or number agreement, the quantifiers show agreement with their respectable DPs even when floated. Norwegian nouns are inflected according to number, gender (M, F and N), and definiteness. The quantifiers modifying them are also similarly inflected. To illustrate this I used the Norwegian universal quantifier *alle,* which has three different forms according to the gender and count/mass of its accompanying DP: *alle* [+PL, M/F], *alt* [-PL, N], and *all* [-PL, F/M], their usages illustrated in example (72).

In section 2.7 I established that the middle position in Norwegian is the seat following the finite verb. When putting the three aforementioned variants of the universal quantifier floating in middle position, however, at first glance only the [+PL, M/F]-variant is able to successfully float in middle position:

(72) a. **Alle studentene** gikk på universitetet.
all-PL student-DEF.PL.M went to university-DEF.N
b**. Studentene** gikk **alle** på universitetet.
student-DEF.PL.M went all-PL to university-DEF.N
'All of the students went to university.'

c. **All skylda** lå på mine skuldre.
all-M/F guilt-DEF.F lay on my shoulder-DEF.PL.F
d.*__Skylda__ lå **all** på mine skuldre.
guilt-DEF.F lay all-M/F on my shoulder-DEF.PL.F
'All guilt lay on my shoulders.'

e. **Alt vannet** skal koke.
all-N water.DEF.N shall boil
f.*__Vannet__ skal **alt** koke.
water.DEF.N shall all-N boil
'All of the water is going to boil.'

As for example (f), the sentence is unacceptable in future tense but acceptable in the past tense, which was shown to be caused by the confound presented by the quantifier *alt* being a homonym of the adverb *alt*, meaning already. When this confound was removed by changing the tense of the sentence, floating *alt* in the middle seat was deemed as unacceptable.

The sentences in (72) show that out of the variants shown, the middle field is only available to the [+PL] quantifier *alle*. However, as previously established, there are more seats available to the Norwegian floating quantifier than the middle field: sentence-initial position and sentence-final position.

In this subchapter, I will first discuss the workings of the fronted quantifier, and at the same time compare this phenomenon with the similar one of fronted reflexives. Then, I will explore whether the differences in floating patterns these quantifiers display give any more information on what it is that causes these seemingly similar variants of the same quantifier to show such a difference in floating ability.

3.3.1 Sentence-initial floating

The first floating pattern I will explore is the one where the quantifier seems to float in sentence-initial position and where the subject DP occupies the middle field. I have previously called this floating pattern *reverse floating*, as it seems like exactly the same positions in the sentence are occupied by the subject DP and the quantifier when the quantifier is floated, except for the fact that they have switched positions. The subject DP in all of these cases are pronouns with nominative case. The phenomenon is illustrated by these examples from Faarlund et al. (1997, p. 921):

(73) a. **Alle** hadde **dei** reist seg.
all-PL had they raised themselves
'All of them had stood up.'
b. **Begge** måtte **dei** bøte med livet.
both must they pay with life-DEF.N
'They both had to pay with their lives.'

These examples show that if one sees the DP as floated in these cases such as one would a quantifier, it is seated in the middle position after the finite verb, which is the same middle position as that for the floated quantifier, as is seen in these examples where these two elements are reversed into a by now more familiar structure:

c) **Dei** hadde **alle** reist seg.
they had all-PL raised themselves
d) **Dei** måtte **begge** bøte med livet.
they must both pay with life-DEF.N

According to the Stranding Analysis, a floated quantifier shows subject agreement with the DP it modifies, a criteria which is satisfied in these cases. Looking at the structure of sentences (73a) and (73b) through the lens of the Stranding Analysis, one could analyse the structure as being similar to this:

(74) [CP [QP Alle] [C' [C hadde] [TP [DP ~~alle~~ dei] [T' [T ~~hadde~~] [VP [DP ~~alle dei~~] [VP [V ~~ha~~ reist [DP seg]

In this analysis, the pronoun is left stranded in [Spec, TP], whilst the quantifier has successive-cyclically moved to [Spec, CP]. As such, this interpretation fits the model for the Stranding Analysis. This also fits the fact that the data in chapter 2 show that this quantifier fronting phenomenon do not work with partitive quantifier phrases, which also do not form a functional constituent. *Alle dei/alle de*, on the other hand, is fully acceptable as one constituent, even though the pronoun in these cases all seem to be part of a bigger QP phrase, which can be replaced with a lexical noun:

(75) a. Kan **alle** **[de** som har gjort oppgaven] rekke opp hånda]?
can all-PL they who have done task-DEF.M hold up hand-DEF.SG.F
'Can all those who have finished the assignment hold up their hands?
b. Kan **alle** **studentene** rekke opp hånda?
can all-PL student-DEF.PL.M hold up hand-DEF.SG.F
'Can all of he students hold up their hands?

c. **Alle** **[de** som kjempet i krigen] fikk en medalje.
all-PL they who fought in war-DEF.M recieved a medal
'All those who fought in the war received a medal.
d. **Alle** **soldatene** fikk en medalje.
all-PL soldier-DEF.PL.M recieved a medal
'All of the soldiers received a medal.'

This means that in the tree analysis of sentences (a) and (c), the QP would stand as a subject in the sentence and be projected in [CP].

As for the sentence-initial floating phenomenon, data presented by i.e. Hoeksema (1996) shows that this phenomenon is not exclusively Norwegian or for that sake Scandinavian, but is seen in other languages such as Dutch (a) and German (b) as well (p. 59, original glossary). In English (p. 59, example c), however, this construction does not work.

(76) a. Allebei hebben we teveel gedronken
all-both have we drunk too-much
'We have both of us drunk too much.'
b. Alle haben sie gelogen.
all have they lied.
'They have all lied.'
c. *All, they were very happy.

Hoeksema calls this phenomenon *topicalised anaphora* and compares it to a phenomena which on the surface seems similar, namely fronted reflexives, which also exists in Dutch and German. In chapter 2 I showed how this phenomenon exists in Norwegian as well, and actually is juxtaposed with floating quantifiers in the chapter on the latter subject by Faarlund et al. (1997) in their subchapter on Norwegian floating quantifiers, giving this literary example from Bjørnstad (1997):

(77) **Selv** har **han** ingen ord.
self he has no words
'He himself has no words.'

Here, the seat occupied by the reflexive seems to be same as that of the quantifiers in examples (73) above, which is the one introducing the finite verb. The antecedent to the reflexive is seated in the apparently same position as the DP in the same examples, directly following the finite verb. English allows for this topicalization as well, but there is a marked difference between the sentence structure of these English examples and the Norwegian/Dutch/German ones, namely that while the latter follows the same structure as that for floated universal quantifiers, this is not so in English, where the pronoun follows the reflexive directly:

(78) For **herself she** wanted nothing.

As such, this might not be the same phenomena at all. According to Radford (2004, pp. 327-332), this kind of example is typical for syntactic topicalisation, where the fronted element is placed in [Spec, TopP], which again is C-commanded by a Force Phrase within CP. Contrary to the abovementioned examples from Norwegian, Dutch and German, however, this structure do not work for English quantifiers.

According to the Stranding Analysis, floated quantifiers and their DPs are not true anaphora, even if they have a seemingly anaphoric relationship. This is explained by the analysis to be caused by the QP starting out as one constituent at the sentence base level, which true anaphora do not. As such, even if the two phenomena seem similar, they are structurally different. Another factor which makes the phenomena so similar is the fact that for floated quantifiers, the DP it modifies, which on the surface seems to play the part of the antecedent, have to syntactically C-command the quantifier, which here plays the part of the anaphor, for the sentence to be acceptable. In these sentences where the quantifier is fronted, however, the C-command-relation between the two is switched as well. If one accepts that in the Norwegian sentences with a fronted quantifier the quantifier is seated in [Spec, CP] and the DP is seated in [Spec, TP], here it is the quantifier that C-commands the DP and not the other way around. The same holds for the examples where the reflexives are fronted.

But even if the syntactic C-command seems to have been switched in these sentences where the quantifier is fronted, the topicalization of the quantifier is a stylistic choice. This style serves to make the quantification of the elements of the given set the focus of

the sentence and not the set itself, thus slightly altering the meaning of the sentence. The difference between English and Norwegian in this case might be that Norwegian Topicalisation Phrases are open to QPs, whilst English ones are not.

3.3.2 Sentence-final floating

I have previously discussed how the Norwegian universal quantifier *alle* (all) have three different inflections, *alle*, *alt*, and *all*, depending on the [PL] and count/mass-properties of the DPs they modify. However, the data in chapter 2 show that these different variants, although similar in their universal meaning, have quite different floating abilities: *Alle* can be floated in all three possible seats, which are sentence-initial, middle and sentence-final position. *Alt* can only float in sentence-final position, and *all* do not display floating behaviour at all. On the surface, it thus seems like there is a mass/count-distinction on whether Norwegian quantifiers are able to float, in that *all* is the only universal variant of the three that caters exclusively to mass nouns. The same pattern seems to be apparent amongst partitive quantifying expressions as well, in that between *flesteparten* and *mesteparten*, where *flesteparten* have a [+PL]-quality, the quantifying phrases including *flesteparten* is the one which is the most acceptable in floating position. As previously established, however, the actual floating ability of the partitive phrase *flesteparten* is quite limited, as it is only able to float in middle position following the middle field adverbial and introducing a finite verb.

Previously in this chapter I discussed the Norwegian quantifiers' floating behaviours in the middle- and sentence-final position. In these positions there was only *alle* that was able to float. In this section, I will attempt to discover more about what separates the three variants of the universal quantifier *alle* through the patterns of the last available seat of the Norwegian floated quantifier: the sentence-final position.

As shown by the data on quantifier float in sentence-final position in chapter 2, the quantifier cannot stand alone in this position, but it can be separated from its DP if it is part of a larger phrase consisting of the quantifier and the adverbial *sammen* (together). The meaning of *alle sammen* thus becomes *all of us/them*, and *alt sammen* becomes *all of it*. As shown in (79), this floating behaviour is available to both *alle* and *alt*, but not to *all*, which shows that there is no possible position in Norwegian where the universal form a*ll* is able to float. I will return to the question of why that is later in this chapter.

(79) a. De kom **alle sammen** på festen.
they come all-of-them to party-DEF.SG.M
'They all came to the party.'

b. ?Det har blitt gjort **alt sammen**.
it has been done all-of-it
'It has all been done.'

c. *Informasjonen ble gitt **all sammen**.
information-DEF.N was given all-of-it
'All of the information was given.'

d. *De kom på festen **begge sammen**.
they came to party-DEF.SG.M both-together.

e. De kom på festen **begge to**.
they came to party-DEF.SG.M both two

According to the stranding analysis a quantifier should be able to float in sentence-final position in passive and unaccusative sentences, as in these sentences the subject DP is seated as a complement of the verb at base level and thus leaving a DP trace. If it is so that all floating quantifiers start out as a QP, which includes both the quantifier and the DP it has scope over, this stranding position should be available. In e.g. standard English and French, this is not possible. In the examples above in (79), however, example (a) shows the quantifying phrase *alle sammen* floating in sentence-final position following the unaccusative verb *å komme* (to come). Adapting the Stranding Analysis, it thus seems like the quantifying phrase have been stranded as the complement of the verb while the pronoun has successive-cyclically moved to sentence-initial position:

(80) a. [CP [DP de$_i$] [C' [C kom] [TP [DP ~~de$_i$~~] [T ~~kom~~] [VP [DP ~~de$_i$~~] [V' [V komme] [QP alle sammen [PP på festen]

However, there is one important aspect to note concerning the phrase *alle sammen*: the QP **de alle sammen* could not have started out as one constituent, as is exemplified in (a), using a lexical noun instead of a pronoun since pronouns in the nominative case are not acceptable in this position:

(81) a. ***Alle sammen studentene** kom på festen.
all-of-them student-DEF.PL.M came to party-DEF.SG.M

Removing the adverbial *sammen* from positions which are not sentence-final, however, makes these sentences perfectly acceptable. As I have previously established that Norwegian quantifiers float in the middle position following the finite verbal element, these examples are followed by a PP verbal complement:

b. **Alle studentene** kom på festen.
all-PL student-DEF.PL.M came to party-DEF.SG.M
c. **Studentene** kom **alle** på festen.
student-DEF.PL.M came all to party-DEF.SG.M

As previously mentioned, *sammen* is an adverbial. This means that one possible interpretation of these data is that whilst *alle* is a QP when seated in DP-initial position and floated in middle position, *alle sammen* when used at the end of a sentence is not a QP, but an AdvP. It is well known that there are many adverbials which have quantifying properties, such as English *every*. According to this interpretation, *alle sammen* is adjuncted to the VP following the unaccusative verb in sentence-final position:

d. [CP [DP they] [C' [C kom] [TP [DP ~~de$_i$~~] [T' [T ~~kom~~] [VP [DP ~~de$_i$~~] [V' [V ~~komme~~] [PP på festen **alle sammen**]

This position is a perfectly acceptable seat for other Norwegian adverbials as well:

e. De kommer på festen **klokka seks**.
they come to party-DEF.SG.M clock six
'They are coming to the party at six o'clock.'

The weakness of this analysis, however, is that if *alle sammen* is a quantificational adverbial, this does not explain why it has subject agreement inflection, as the previously mentioned *alt sammen* is a perfectly acceptable phrase, as seen in example (79b), which is repeated here for convenience:

(82) ?Det har blitt gjort **alt sammen**.
it has been done all-of-it
'It has all been done.'

I have given sentence (82) a question mark, however, as it is a more acceptable in conversation than it is in formal writing. An aspect that should be noted on the examples where the phrases *alle/alt sammen* is in sentence-final position following an unaccusative verb, however, is that most of my informants, myself included, see this structure as being old-fashioned. This aspect in echoed in that several of my informants commented on that they would find the structure of this sentence odd if it was uttered by a peer, but would find it perfectly acceptable if it was uttered by one of their grandparents. As previously commented upon, this reaction was common as well in the review of the examples provided where the quantifiers were floated in sentence-initial position. This means that even if these forms are acceptable, they are seen as old-fashioned and as such probably are in a process of being phased out of the language.

As for the examples (79d) and (79e) using the universal quantifier *begge*, they show that of the universal quantifiers, *alle* is not alone in being able to float in sentence-final position. However, whilst *alle* and *alt* only can float in sentence-final position as part of a larger phrase including the adverbial s*ammen*, the similar phrase build-up is not available to floating *begge*, which is dependent on the numeral quantifier *to* (two) to be acceptable. But even if the syntactic structures of the two complex QP phrases are different, their semantic sense is in many ways very similar. As mentioned in subchapter 2.2.3, the numeral QP *to* (two) in the universal phrase *begge to* refers to the cardinality of the set, which by definition is |2|. The universals *alle/alt*, however, do not have a set cardinality. As such, the phrase s*ammen* in this context have the sense of emphasising the inclusion of every given member in the set, which gives the two different expressions a similar semantic usage, even if their syntactic constituents are quite different.

3.4 The constituent question

Similarly to ***de alle sammen**, neither ***de alt sammen** or ***de begge to** are acceptable as one constituent:

(83) a.***Det alt sammen** har blitt gjort.
it all-of-it has been done
b. ***De begge to** kom på festen.
they both to came to party-DEF.SG.M

Similarly to the examples with sentence-final *alle sammen*, one could argue that the constituents *alt sammen* and *begge to* in sentence-final position are adverbial expressions adjuncted to [VP]. However, as there is an obvious subject-agreement between the quantifying expressions their respective DPs in the inflected examples *alt/alle*, this is not a probable explanation.

The examples shown on the floating behaviour of Norwegian quantifiers in sentence-final position in chapter (43) and which have been further discussed in the subchapter above, show that this phenomenon displays a definite subject agreement between the subject DP and the quantifier. Unless one accepts that the *alt/alle sammen* quantifying phrase is two different adverbial phrases, this categorises *alt/alle sammen* as a complex quantifier

phrase containing both a QP and an AdvP. As shown above, the DP+QP cannot form a constituent in these cases, which they have in common with the complex quantifying structures discussed in relation to partitive doubling.

This latter phenomenon, which has been shown to occur in several other languages including English and Dutch, has already been established as constituting a challenge to the Stranding Analysis. These examples from Norwegian show that the floating constituent [QP + PP + DP] is not the only possible floating QP constituent, which seem to strengthen this particular challenge to the Stranding Analysis.

3.5 The mass/count question

In this thesis, I have established that there are three possible floating positions for Norwegian universal quantifiers: sentence-initial, middle position, and sentence-final position. The quantifiers *alle* and *begge*, which both have a [+PL]-quality, are able to float in all three positions; alone in sentence-initial and middle position, and as part of a more complex QP in sentence-final position. *Begge* do not display subject-agreement, as it is inherently [+PL] in nature, but *alle* is unique is having three different variants according to the number and mass quality of its respective noun, namely *alle* [+PL], *alt* [+PL]/[-PL] and *all* [+MASS]. Out of the three, *all* is the only variant of the quantifier that cannot modify count nouns in any way. Incidentally, *all* is also the only variant of the three that do not display floating behaviour at all. Out of the partitive quantifying expressions which have been explored in this paper, there also seem to be such a distinction; *flesteparten* (the most part) and *noen* (some) both have an inherent [+PL]-selection, and are also both of them able to float as part of larger complex quantifying phrases. *Mesteparten* (the most part) have a [-PL]-selection and is as such notably less acceptable in floating positions; apart from in situations where the collected body of individuals in a given set can be seen as one. This *massification* of a collection of entities is common in English as well in expressions such as *the student mass*.

This collected pattern seems to indicate that the quality that determines which Norwegian quantifiers are able to float is the mass/count-properties of their respective DPs, even if there have never yet been reported for any other language that a quantifier's selection of mass/count-features distinguishes its floating ability. However, this singularity might be due to the fact that Norwegian quantifiers from the outset have this particular form of subject-agreement, which languages like English and French do not.

3.6 Pronouns

In this thesis I have shown that there are many factors that distinguish Norwegian floating quantifiers from English floating quantifiers. However, there is one aspect that both unites all of the instances of Norwegian floating quantifiers and distinguishes them sharply from their standard English counterparts: Norwegian quantifiers can be floated when their subject is a pronoun. Not even is still floating behaviour possible, but it is preferable; of all the example sentences given to my informants during this research, examples where the subject DP have been a pronoun have in general a higher acceptability rate when the quantifier is floated in the middle field. When the quantifier is floated in sentence-initial or sentence-final position, however, the examples using lexical nouns in the position of the subject were in general ruled to be unacceptable. This Norwegian characteristic for using pronouns together with a floating quantifier is not unique amongst the languages researched on the floating quantifier phenomenon, however: as previously mentioned in this thesis, Norwegian seem to share this tendency with languages such as Dutch, German and Icelandic, as well as Appalachian English. There are other notable factors that Norwegian floating quantifiers share with the languages in question in addition to this as well, such as that they all allow floating partitive quantifiers in middle position as part of larger complex quantifying phrases. Dutch and German, in addition to Norwegian, also allow fronted universal quantifiers.

Even if lexical noun and pronouns both can fill the role of the subject DP in an equal capacity, pronouns are markedly different from lexical noun in one particular way: whilst a lexical noun can stand independently in an utterance without the need for further clarification, a pronoun is in itself is dependent on being part of a greater discourse. According to Gordon, Grosz & Gilliom (1993), pronouns are *discourse centres* which 'are semantic entities that provide coherence among utterances in a discourse segment' (p. 312), meaning that for a pronoun to refer to an entity, there has to be given information is the previous discourse which the pronoun can be semantically linked to. Without this previous background being given, a sentence using a pronoun will not make sense for the listener. A lexical noun, on the other hand, is not dependant on this sort of previous discourse to be interpreted.

This aspect on the difference between lexical nouns and pronouns makes one of the more prominent differences between English and Norwegian floating quantifiers. This difference is quite practical: while English floating quantifiers can appear in single statements introducing new information, Norwegian floating quantifiers can only be used in situations where a context have already been given. To attempt to explain why this is so is beyond the scope of this thesis but would be an interesting subject for further research.

4 Conclusion

This thesis has been a research project on floating quantifiers in Norwegian. Although the subject of floating quantifiers has been extensively researched in a number of languages, the existing data on this phenomenon in Norwegian have constituted a disappearingly small amount. Through the data collected on this subject through this thesis, I have not only sought to expand the available data on Norwegian quantifiers specifically, but on the subject of floating quantifiers in general.

In the first part of this thesis I presented the theoretical framework behind the two most prominent analysis methods developed to explain the floating quantifier phenomenon, namely the Adverbial Analysis and the Stranding Analysis. Where the Adverbial Analysis argues for floating quantifiers to be analysed as adverbials adjoined to VP, the Stranding Analysis makes an arguments for floating quantifiers to be analysed as a part of a larger constituent [QP + DP] where the QP have ended up stranded in a subject trace position by the subject DP's successive-cyclic move from its position at base level to its position at surface level. Both of these analyses have their strengths, but they both also face challenges that are not readily explained within their framework, which suggests that floating quantifiers should not be analysed as either being solely one or the other, but that both analysis theories can explain respective parts of the collected data that the other cannot. There are exceptions to both of these analyses, however, one example being the data provided on West Ulster English by McCloskey (2001), whose data on Irish FQs is contrary to both of these analyses in that Irish quantifiers obviously are stranded through A'-movement, which is unprecedented in the existing research.

On grounds of the data provided in this thesis, I have shown both that Norwegian undeniably has floated quantifiers, but that these distinguish themselves from the majority of the existing corpora in six major ways:

1) Both universal and partitive quantifiers have the ability to float in separate middle positions, but partitive floating quantifiers are dependent on being part of complex quantifying expressions for this to be possible;
2) Norwegian universal quantifiers are able to float in sentence-initial position as long as the DP they exert scope over is seated in middle position;
3) Norwegian universal quantifiers can be floated in sentence-final position, but only as part of complex QPs;
4) Norwegian quantifiers cannot be floated in embedded clauses;
5) Norwegian quantifiers seem to have a mass/count-restriction on their ability to float;
6) Norwegian quantifiers, whether universal or partitive, have a much higher acceptability rate when the DP they have scope over is a pronoun and not a lexical noun.

Points 1) and 3) cannot be explained by the Stranding Analysis, as these complex QPs do not make acceptable phrases when put in DP-initial position, which shows that they cannot have started out as one constituent [QP + DP] as the analysis arguments for. However, they cannot be plausibly explained to be adverbials either, as adverbials do not show subject-agreement, which these complex QPs do. As for point 2), these structures are found in other languages such as Dutch and German as well, and similarly to these languages these Norwegian structures seems to be similarly identical to topicalized anaphora, which is one of the arguments of the Adverbial Analysis. Point 4) have been

commented on previously for Swedish by Cirillo (2009), who arguments for this being due to Scandinavian quantifiers not being able to penetrate what he calls a cluster of verbal elements. However, this hypothesis was partly built on evidence showing the apparent unacceptability of Scandinavian quantifiers floating in the seat between a finite verb and its complement, an argument which I in this thesis have shown to be based on faulty ground caused by an unforeseen confound. Point 5) can be seen in both floating universal and partitive quantifiers but is the most notable when dealing with the universal mass quantifier all (all), which I have shown to be unable to float in any position. Why this is so is not clear; as all show definite subject agreement, it cannot be an adverb. However, as it is a universal quantifier, there is no existing reason that can explain why this quantifier in particular is unable to float; the only factor separating this universal quantifier from the other universal quantifiers seems to be its [+MASS]-selection. As for point 6), Norwegian floating quantifiers show a definite preference to being matched with pronouns over lexical nouns, but there seems to be no obvious reason why this is so. What practical difference this sets between Norwegian and English FQs seems to be that by the inherent referential nature of pronouns, Norwegian floating quantifiers are much more likely to be used as part of a greater discourse than as single statements or discourse starters, the latter of which as such must characterise the English usage of FQs.

Through this research I have shown that neither the Stranding Analysis nor the Adverbial Analysis seem to adequately explain the floating behaviour of Norwegian Quantifiers. Therefore, other research on possible extra-syntactic factors that might play a part in accounting for this distribution is needed.

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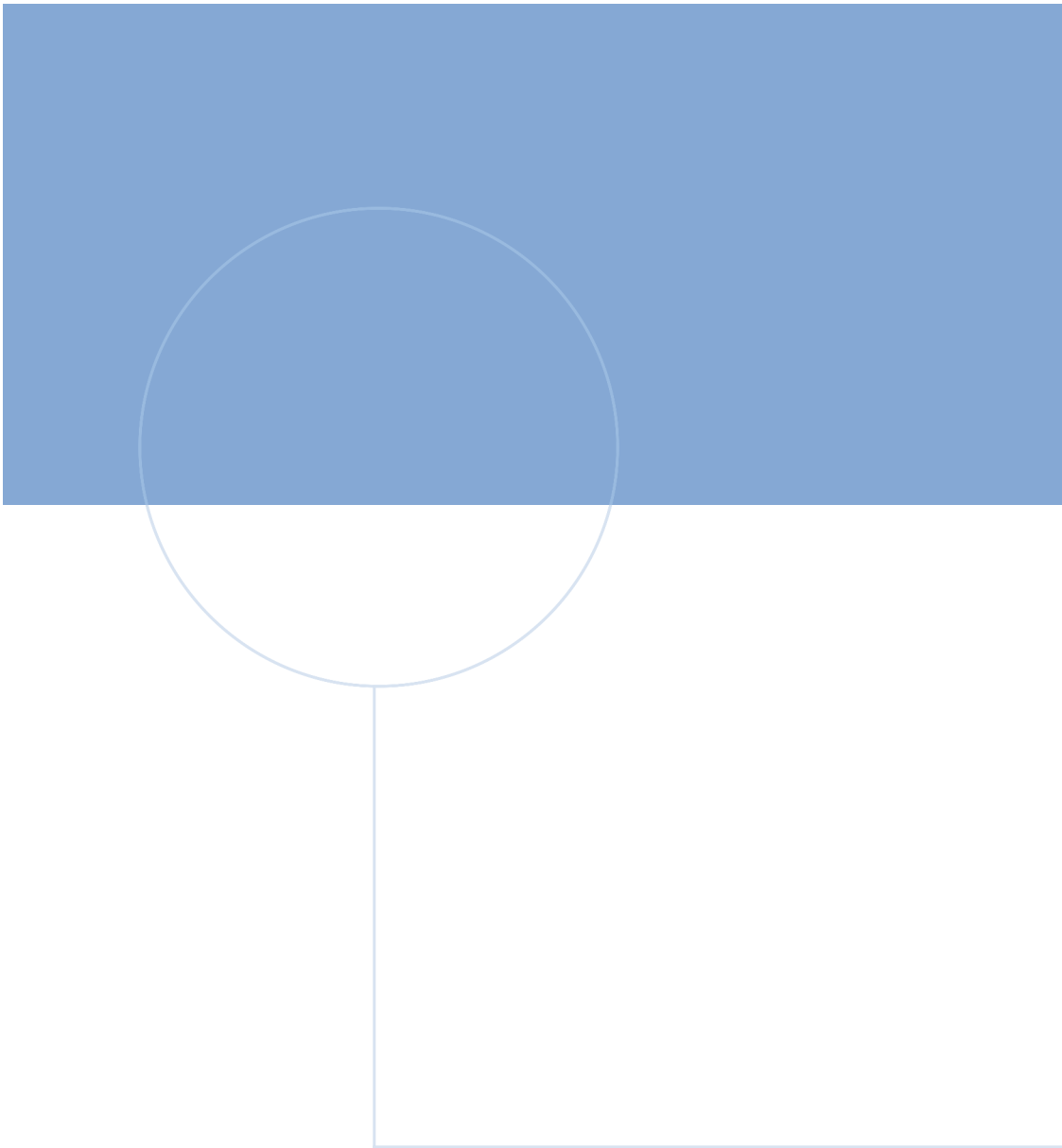

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