Clefts in Norwegian wh-questions

*Their use and meaning*

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Abstract

Clefts (Norwegian: Utbryting) is a common phenomenon in Norwegian. It is traditionally considered primarily a focus construction (see e.g. Norsk referansegrammatikk), however it is also common in wh-questions, and pointing to clefts as a focus construction does not explain their frequent use in such questions.

Among wh-questions, clefts are used more often when the wh-element is hva ‘what’ or hvem ‘who’, than when it is hvor ‘where’, hvordan ‘how’ or hvorfor ‘why’. Clefts are used more often when the question asks for a subject, object or complement to a preposition, than when it asks for an adjunct. If a cleft question asks for a subject, the cleft clause is introduced by the complementizer som, otherwise there is typically no complementizer.

Clefts are obligatory in one kind of special questions, surprise-disapproval questions, and very common in the kind of questions dubbed again-questions in this thesis. On the flipside, cleft questions cannot be used as positively polar rhetorical questions, i.e. questions that are uttered to convey that no value for the variable exists. Standard questions as well as other kinds of special questions are typically non-cleft questions, but some contexts prefer the question to be a cleft question. On the other hand, some contexts also prefer the question to be a non-cleft question.

This pattern of use in questions can be explained if clefts, rather than seen only as a focus construction, is analysed as having two defining properties. First, clefts always contain an exhaustivity presupposition that has the same form both in wh-questions and in declaratives, namely that the clefted constituent is not a proper part of the maximal individual for which the predicate holds, following Büring and Kriz (2013). Secondly, the denotation of cleft questions does not contain two propositions that are present in the denotation set for their corresponding non-cleft versions: The one where there is nothing for which the predicate holds, and the one where it holds for everything (relevant). In total, then, cleft questions come with an exhaustivity presupposition, obligatorily making them mention-all questions, as well as an existential and an anti-universal presupposition.

All of these three presuppositions distinguish cleft questions from non-cleft questions, as non-cleft questions do not actually carry an existential presupposition, only an existential conversational implicature, which can more easily be cancelled.
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1 Introduction

The construction exemplified in (1) is called *utbryting* (or *utbrytning*) in Norwegian. As is clear from the glosses, it is structurally very similar to English it-clefts. The Norwegian and the English constructions are also very similar (though probably not identical) in meaning, and I will refer to them both as clefts. The cross-linguistic category of clefts also includes constructions in e.g. German, French and Hungarian (Destruel et al. 2015).

(1) a. Det var Anne som fikk jobb-en.  
   ‘It was Anne who got the job.’

   b. Det er Lisa hun elsker.  
   ‘It is Lisa that she loves.’

   c. Det er på sønda vi skal gå tur i skog-en.  
   ‘It is on Sunday we’re going hiking in the forest’

Most of the literature on clefts, in both the Scandinavian and the English-language traditions, are concerned primarily with declarative sentences, and internationally clefts in declarative English sentences have received the most attention. My focus in this thesis breaks away from this pattern, as I will be concerned primarily with clefts in Norwegian wh-questions. More specifically, this thesis seeks to answer when and how cleft questions are used, and what it is about their meaning that differentiates them from non-cleft questions. This is an interesting question both in its own right, and because of the light it may shed on both the meaning of clefts outside of questions and the meaning of questions without clefts.

One of the reasons why clefts in wh-questions are particularly interesting, is that it seems wh-questions contain clefts more frequently than declaratives do in Norwegian. In her dissertation from 2013, Åshild Søfteland found that 4.9 % of the declarative clauses in her material contained clefts, while the same was true for 9.6 % of the interrogative clauses. For the matrix wh-questions, as many as 16 % contained a cleft. (2b) is an example of such a matrix cleft wh-question, with (2a) being its non-clefted counterpart. Søfteland’s findings correspond to a longstanding claim in the Norwegian literature that clefts are particularly
common in questions in Norwegian. This thesis seeks to answer what kinds of wh-questions this is true for, and through that to uncover the meaning of cleft questions.

(2) a. Hva representer-er kjerub-ene her?
   What represent-NPST cherub-PL.DEF here
   ‘What does the cherubs represent here?’
   (SK01KnKa01.10021)
b. Hva er det kjerub-ene representer-er her?
   What is it cherub-PL.DEF represent-NPST here
   ‘What is it the cherubs represent here?’

In the relatively extensive literature on clefts in declaratives, a lot is said about focus (Kiss 1998, Gundel 2002), existential presuppositions (Lundeby [1976] 1994, Büring and Kriz 2013), and in particular a lot of attention has been given to the claim that clefts have an exhaustivity property (Destruel 2015, Büring and Kriz 2013). Since the meaning of clefts in questions is presumably closely related to the meaning of clefts in declaratives, these are topics that will be important also in this thesis. While the overarching question is the use and meaning of cleft wh-questions in Norwegian, (3a-c) are important sub-questions.

(3) a. Are some kinds of questions more likely to contain clefts than others?
   b. How do the non-at-issue and information structural aspects of the meaning of clefts in declarative sentences carry over to clefts in questions, if at all?
   c. Do the presuppositions of cleft questions differ from the presuppositions of non-cleft questions?

In order to answer a question like (3a), it is necessary to have data from actual language use. A part of this thesis therefore consists of a corpus study, making use of Leksikografisk Bokmålskorpus (LBK). Having solid data in answer to this question also improves the quality of the answers one can give to (3b) and (3c), as usage patterns are likely caused by exactly such factors.

A large part of this thesis is concerned with questions that are uttered with some other purpose instead of or in addition to requesting information, so-called special questions. Clefts are obligatory in some kinds of special questions in Norwegian, and ruled out in others. A theory of the meaning of clefts in questions should be able to explain this pattern of
optionality, obligatoriness and impossibility, and investigating this pattern can give important insights into the meaning of Norwegian cleft questions in general.

1.1 A note on the references

Following the Scandinavian tradition, in-text references to the standard reference grammars for Norwegian, Swedish and Danish will be given as NRG, SAG and GDS respectively. These reference grammars are also listed separately in the references.

All examples taken from LBK are given together with their sentence ID in the corpus. This sentence ID is an alphanumerical code, where the first two letters represent the genre of the text in which the example is found. SA denotes non-fiction, SK fiction, AV newspapers and periodicals, TV television subtitles and UN unpublished material. Examples that are not given together with such a code and does not have an origin identified in the text are examples that are constructed for the purposes of this thesis.
2 Background

2.1 Clefts in Norwegian

Norwegian clefts are structurally very similar to English it-clefts. As is clear from (4), repeated from (1a), Norwegian clefts and English clefts often appear to be exact parallels of each other.

(4) Det var Anne som fikk jobb-en.
   It was Anne that got job-DEF
   ‘It was Anne that got the job.’

There are, however, subtle differences, both in structure and meaning, and it is a mistake to assume that clefts in Norwegian exactly parallel clefts in English in everything.

The matrix subject in Norwegian cleft sentences is always det, this is an obvious parallel to the role of it in English clefts. In the Scandinavian literature it is common to assume this pronoun to be an expletive (Søfteland 2013). Hedberg (2000) argue that the it in English it-clefts is not an expletive, but indeed referential, but it is typically characterized as an expletive also in English. That det is an expletive in Norwegian clefts will be assumed in this thesis, but no aspect of the analysis hinges directly on this assumption.

The matrix verb in Norwegian cleft sentences is typically a form of være/vere ‘to be’, usually one of the two simple tenses, either past var or even more frequently non-past (often called present) er. Other tenses are very infrequent, but not impossible. Sentences like (5) are perfectly grammatical. In some limited cases the matrix verb is not være/vere at all, but a form of bli/verte ‘become’. When bli/verte is used as the matrix verb, this expresses that the event is viewed from without, as a completed whole (Søfteland 2013).

(5) Det har vært de norske landslags-jentene som har vært
   It has been the Norwegian country-team-girl-PL.DEF that have been
   yndlingene på hånd-ball-banen.
   favourite-PL.DEF on hand-ball-field-DEF
   ‘It has been the girls on the Norwegian national team that has been the favourites on the handball field.’
   (SA11UL0864.5)
It becomes single-human-DEF that must prove 3.POSS un-guilt when registered-PL information-PL are wrong-ADJ-PL or lack-full-PL.

‘It will be the individual that has to prove their innocence when registered information is wrong or incomplete.’

The predicative of the subject in the matrix clause is what I will refer to as the clefted constituent. This constituent fulfils some function in the embedded clause, and it has in some sense been “broken out” of it, hence the Norwegian term for this construction, *utbrytning/utbryting*, literally “out-breaking”. The clefted constituent can fulfil pretty much any syntactic function in the embedded clause, however the structure of the embedded clause differs slightly between the different cases.

If the clefted constituent corresponds to the subject of the embedded clause, the embedded clause must be introduced by the complementizer *som* (NRG). This complementizer typically introduces relative clauses, and the embedded clause looks just like a normal relative clause where the subject has been relativized in these sentences.

If the clefted constituent is the object, the embedded clause can still be introduced by *som*, but *som* can also be left out. In fact, it is by far more common for it to be left out (Søfteland 2013), and in many cases leaving it in will result in a clunky or odd sentence. In many ways, this pattern parallels the pattern for relative clauses where the object is relativized, as *som* is optional also here (NRG). However, keeping *som* is probably more common in relative clauses, and the result is less likely to be perceived as clunky.

If there is a complementizer when the clefted constituent is a free adverbial, this complementizer is never *som*, but rather *at*, a complementizer that typically introduces complement clauses. However, like when the clefted constituent is the object, also in this case it is more common for there to be no complementizer (Søfteland 2013, NRG). It is interesting to note, that in common relative clauses the complementizer is *som* if there is one, also when the relativized constituent is an adjunct. This contrast is demonstrated in (7) and (8) below, where (7) shows a clefted adverbial and (8) shows a relativized one.
Det var på den måten at noen ting gjorde at jeg ble fryktelig redd for henne.
‘It was in that way that some things caused me to be terribly afraid of her.’

Det kan f.eks. skje på den måten som Aker's styre-formann.
‘It can e.g. happen in the way that the chairman of Aker’s board, Gerhard Heiberg, recently manipulated his CEO, Tom Ruud.’

The embedded clause in Norwegian cleft sentences therefore appears to be somehow different from regular relative clauses in Norwegian. In much of the English language literature on clefts, it is common to use the term “cleft clause”, but no equivalent term is common in any of the Scandinavian languages (Søfteland 2013). Much of the Scandinavian literature uses the term relative clause (SAG, Fretheim 1970) despite its inaccuracy, or else it is simply called a subordinate clause (GDS, Venås 1978). For the remainder of this thesis, I will use the term cleft clause to refer to the embedded clause in Norwegian cleft sentences, in order to follow in the English language tradition as well as to avoid any unfortunate implications about the nature of this clause.

As mentioned earlier, the clefted constituent can correspond to more or less any syntactic function in the cleft clause. NRG (p. 1089-1090) lists the syntactic functions that can be clefted as subject (9), object (10), predicatives (11), free adverbials (12), bound adverbials (13), and verb phrases (14). The examples in (9)-(14) are all taken from NRG.

‘It was Espen that won the ski jumping competition in Lillehammer in 1994.’

‘It was the ski jumping competition that Espen won in Lillehammer in 1994.’
(11) Det er ondskaps-full han er.

It is evil-full he is

‘What he is is evil.’


It was on Lillehammer Espen won jump-race-DEF in 1994

‘It was in Lillehammer that Espen won the ski jumping competition in 1994.’

(13) Det er her ho bur.

it is here she lives

‘This is where she lives.’

(14) Det er liggje i telt eg ikkje vil.

it is lie in tent I not want

‘It is sleeping in a tent that I don’t want to do.’

If the verb phrase that is clefted contains a finite main verb, the matrix clause must contain the pro-verb gjøre ‘do’ (NRG, p. 1090). In these cases, the clefted verb can be either finite or non-finite, as in (15a) and (15b), also from NRG.

(15) a. Det var stel-e han gjorde

It was steal-INF he did

b. Det var stal han gjorde.

It was steal.PAST he did.

‘It was steal he did.’

NRG also points out that the cleft constituent can contain anaphoric expressions, even if the antecedent remains in the cleft clause, as in (16).

(16) Det er berre seg sjølv han vil snake om.

It is only 3.SG self he will talk about

‘It is only himself he wants to talk about. / He only wants to talk about himself.’

There are, however, some syntactic functions it is difficult to make into clefted constituents. Even in these cases, clefts are rarely outright ungrammatical, but rather somewhat odd or unnatural. NRG claims this holds for free predicatives (17), what they call “constant identifying predicatives” (my translation) (18) and adjectival adverbials (19). They only claim outright ungrammaticality for sentence adverbials as clefted constituents (20).
(17) Det var fortvilte dei vent-a på hjelp.
It was desperate they wait-PAST on help
Intended: ‘They were desperate while waiting for help.’

(18) Det er hovudstad-en i Noreg Oslo er.
It is capital-DEF in Norway Oslo is
‘It is the capital of Norway Oslo is.’

(19) Det var stygt han sang.
It was ugly he sang.
‘It was ugly he sang.’

(20) Det var heldigvis eg treff-te deg.
it was fortunately I meet-PAST you
Intended: ‘Fortunately I met you / It was fortunate that I met you’

All of the example sentences so far have had the expletive det in the front field. This is not necessary, however, as it is also perfectly possible for an adverbial to move out of the cleft clause and into the front field of the matrix clause, as has happened in (21) below. Since Norwegian is a verb second language, the copula and the expletive change order in these cases, so the verb remains in the second position, followed by the expletive.

(21) Men på denne øy-a er det en annen pingvin som er hersker.
But on this island-DEF is it a other penguin that is ruler
‘But on this island it is another penguin that is the ruler.’

TV02UN1011.58

It appears to be the case that clefts occur more frequently in Norwegian than in English. Gundel (2002) studied the Norwegian original of Sophie’s World by Jostein Gaarder, and compared it to the English translation. She found that the first 78 pages contained 32 clefts in the Norwegian original. Only nine of these, or 28 %, were clefts also in the English translation (Gundel 2002, p.119). Gundel investigates whether this difference is due to different constraints on the construction in the two languages, but concludes that that is in fact not the case. Instead, she claims that clefts appear more frequently in Norwegian because of a stronger tendency to map information structure directly onto syntax. Norwegian clefts have focal elements in the cleft clause more often than English clefts, Gundel hypothesizes that this is because Norwegian take advantage of clefts as a strategy to avoid focal material in the subject position.
Norwegian clefts are structurally very similar to an existential/presentational construction. This is obvious from (16), which has both a cleft interpretation and an existential interpretation.

(22) Det er et barn som har blitt på-kjørt  
It is a child that has become on-driven  
‘There’s a child that has been hit by a car’ OR ‘It is a child that has been hit by a car’

This construction is typically considered a kind of presentational construction rather than a kind of cleft in the Norwegian literature, and most work on cLEFTs hardly mention it. While it is of course possible to make the intended interpretation of (21) clear by use of prosody, Søfteland (2013) finds that the two constructions are not always clearly distinguishable from each other in practice, even in spoken language. She argues that the line between the two kinds of constructions is not as clear as assumed in much of the literature. She terms the existential/presentational version “presenteringsubtøying” which I will translate as presentational clefts. “Presentational cLEFTs” is a term sometimes used about a family of constructions in the Romance languages, for French it means sentences that start with *il y a*, contain a relative clause and can be transformed into an equivalent sentence with subject-verb word order. Like the Norwegian presentational cLEFTs, this construction in French is sometimes considered a subtype of a broader category of existential sentences (Karssenberg 2016). Unlike Norwegian presentations cLEFTs, however, there is no ambiguity with regular cLEFTs, which are expressed with *c’est* ‘it is’, not *il y a*.

I include reference to this construction here for completeness, and because some questions that superficially look like cleft questions are better characterized as interrogative versions of this construction, and like Søfteland, I too have come across cases where the distinction is not immediately clear.

**2.2 The meaning of cLEFTs**

A primary concern of this thesis is the meaning of cLEFTs in questions. It is natural to assume that the meaning of cLEFTs in questions is in some way related to the meaning of cLEFTs in declaratives. Therefore, it is relevant and necessary to look more closely at what has been said about the meaning of cLEFTs in declaratives, both in general and specifically for Norwegian.
That there is a close relationship between clefts in declaratives and clefts in questions can be illustrated by an example like (23). Intuitively, (23b) is understood as the “question version” of (23a), while (23d) is understood as the “question version” of (23c). Similarly, if “Anne” is given as a one-word answer to (23b), that answer receives the interpretation of (23a), while if “Anne” is given as a one-word answer to (23d), it would be interpreted as (23c).

(23)  

a. Anne fikk  jobb-en  
Anne got  job-DEF  
‘Anne got the job.’  
b. Hvem fikk  jobb-en?  
who got  job-DEF  
‘Who got the job?’  
c. Det var Anne som fikk jobben  
It was Anne that got  job-DEF  
‘It was Anne that got the job.’  
d. Hvem var det som fikk jobb-en?  
who was it that got  job-DEF  
‘Who was it that got the job?’  

In addition to these intuitions, Søfteland (2013) finds that clefts are a cluster phenomenon in Norwegian spontaneous speech, i.e. they tend to occur together. Clefts in wh-questions participate in these clusters together with clefts in declarative sentences, again suggesting a close relationship between the two.

The next sections focus on four different properties often ascribed to clefts in declaratives. 2.2.1 tackles focus, 2.2.2 is about existential presuppositions, 2.2.3 deals with the phenomenon of exhaustivity, and finally 2.2.4 discusses the ways in which clefts are said to be similar to identity statements.

2.2.1 Focus

The first thing typically said about clefts is that they are a focus construction. In fact, in Norwegian they are occasionally called fokusering ‘focusing’. This is for example the term used in NRG. In NRG focus even becomes the defining element of clefts (contra
presentational clefts, which they call a kind of presentational sentences), as clefts are the
construction that has as its function to focus the constituent that has been moved out of the
embedded clause (NRG, p.1088). It is apparent that understanding focus is a necessary
prerequisite to understanding clefts.

Focus is an information structural term that is defined in several partly conflicting ways by
different scholars, and that is often used without a proper definition. Sometimes, focus is used
to mean something like new information, other times it is equated with emphatic stress or
with contrastivity (See Søfteland 2013, p.21-23).

Gundel (1999) reviews different terminologies and definitions, before concluding with three
different kinds of focus: Psychological, semantic and contrastive. A constituent has
psychological focus if it can be assumed that both the speaker and the addressee focus their
attention on it, as it is important or prominent at a given point in the discourse. That a
constituent has semantic focus means that it contains new information that is asserted about
something that is already known. Lastly, contrastive focus is when a constituent is made
prominent by some linguistic mean because the speaker wants the addressee to focus on that
over something else.

Lambrecht (1994) gives a definition of focus very similar to Gundel’s semantic focus when
he writes:

*The focus of a sentence, or more precisely, the focus of the proposition expressed by a
sentence in a given utterance context, is seen as the element of information whereby
the presupposition and the assertion DIFFER from each other. The focus is that portion
of a proposition which cannot be taken for granted at the time of speech. It is the
UNPREDICTABLE or pragmatically NON-RECOVERABLE element in an utterance. The
focus is what makes an utterance into an assertion.* (Lambrecht 1994, p. 207)

Lambrecht also divides focus into three categories, but as follows from his general
definition of focus, all of these would be kinds of semantic focus in Gundel’s system.
Lambrecht’s three categories have to do with what part, or how large a part, of the proposition
has focus, as he divides focus into argument focus, predicate focus and sentence focus.

Søfteland (2013) follows Kiss (1998) and assumes two kinds of focus in her dissertation,
information focus and identificational focus (2013, p.21-22). Kiss argues that this distinction
is a vital one and that failing to make it has been the reason for several wrongful analyses. She
describes information focus as a kind of focus that is present in all sentences, as non-
presupposed information marked by a pitch accent. It is worth noting that this definition is similar to Lambrecht’s definition of focus, and to Gundel’s semantic focus. Kiss’ identificational focus, on the other hand, which she notes can also be called contrastive focus, is defined as follows:

An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase holds. (Kiss 1998, p. 245)

In other words, identificational focus identifies all of the contextually relevant elements for which the predication holds, in contrast to the ones for which it does not hold. Kiss claims that only identificational focus, not information focus, is associated with movement. Furthermore, she claims that it-clefts is the way in which English expresses identificational focus, while non-cleft foci are always information focus.

This division is an interesting one, especially for the insights it contains about the differences between clefted constituents and in situ foci. but this is not the theory of focus that this thesis will build on. Instead, I will make use of the definition of focus used by Krifka (2008, p. 247).

**Focus**

Focus indicates the presence of alternatives that are relevant for the interpretation of linguistic expressions.

This is also a central claim in the theory of Alternative Semantics (Rooth 1985, 1992). The idea has aspects in common with Kiss’ definition of identificational focus. According to this definition, a constituent is a focus if there is a set of alternatives present that is relevant to the interpretation of the sentence, and the sentence asserts one (or more) of these alternatives as true. This differs from Kiss’ identificational focus in that there is no mention of the alternatives being contextually or situationally bound, and also in that this definition does not require the assertion to be exhaustive. In this theory, sentences have focus meanings, which is the set of propositions where all the alternatives are substituted for the one which is asserted. This means that for a sentence like (4), repeated here as (24), the focus meaning, or the set of focus alternatives, is the one given in (25)
In this framework, there is in theory nothing that prevents the set of focus alternatives from being infinite. However, in actual language use, there is only a finite and relatively small set of alternatives that are actually relevant. I follow Beaver et al. (2017) in assuming this set is of grammatical importance, but not directly determined by focus, but rather by the context via the question under discussion (QUD) (see Roberts 1996).

This singular definition of focus is not meant to indicate that all instances of focus are identical to each other. Rather, this is an umbrella definition that holds true for all kinds of focus. Different kinds of focus are to be understood, not as wholly distinct and unrelated things, but rather as subtypes of focus as it is defined here. Krifka (2008) notes, for example, that:

> it might well be that different ways of focus marking signal different ways of how alternatives are exploited; e.g. focus marking by cleft sentences often signals an exhaustive interpretation that in-situ focus lacks. (Krifka, 2008, p. 248)

This approach is valuable, because it allows for a closer investigation of the phenomenon of exhaustivity (see section 2.2.3) and how it relates to focus. Saying that cleft constructions have their own special kind of focus of which exhaustivity is a part describes the facts, but it does nothing to add to our understanding of how or why exhaustivity comes into the meaning of clefts.

### 2.2.2 Existential presuppositions

Büring and Kriz (2013) discuss the fact that that (English) cleft sentences appear to trigger some kind of existential presupposition. Specifically, an English cleft sentence like the one in (26a) triggers an inference like the one in (26b).

(26) a. It was Mary who said that.
    b. Someone said that.
Presuppositions are a kind of non-at-issue content (see e.g. Potts 2015). Non-at-issue content or meaning, is meaning that is not part of the assertion that is made by uttering a sentence, but rather in some sense backgrounded or already taken for granted. Non-at-issue meaning can be of different kinds, presuppositions are merely one kind of non-at-issue content. Questions surrounding exactly how presuppositions should be defined, as opposed to e.g. conversational implicatures, and whether they belong to speakers or utterances, are not finally settled. For the current purposes, it is enough to define the presuppositions of an utterance, or alternatively of the speaker who utters it (following Stalnaker 1974), as the pieces of information they must assume, or at least act like they assume, in order for the utterance to make sense in the current context.

Returning to (26), this means that a speaker who utters (26a) must assume, or at least in some way pretend to assume, that (26b) is true in order for their utterance to make sense. If this is not the case, the sentence is not simply false, but rather impossible to evaluate for truth. If it was simply false, then we would expect its complement to be true, but the negation of (26a) still requires the assumption that someone did indeed say “that” in order for it to make sense. This presupposition is called “existential” because what is presupposed is the existence of an individual for which the predicate holds, in this case the existence of a person who said “that”.

This fact, that presuppositions remain when the sentence is negated, is often used as a diagnostic. It is one of several “presupposition holes” in the terminology of Karttunen (1973). Other such holes are modals, antecedents of conditionals and interrogative operators. While these contexts let presuppositions through, other contexts, called “plugs” by Karttunen blocks the presupposition, while “filters” block presuppositions in some cases. Implications or inferences that are plugged by plugs, filtered by filters and let through holes can safely be considered presuppositions.

Norwegian clefts sentences give rise to the same kind of existential implication as their English counterparts. That this inference is correctly labelled a presupposition can be seen by the way it projects through all of the presupposition holes in (27). All of the sentences (27a-d) require the assumption of (27e) in order to be meaningful. In (27b) it projects past negation, in (27c) past another sentence adverb and in (27d) it projects out of the antecedent of a conditional.
   It was Anne that got job-DEF
   ‘It was Anne who got the job’

b. Det var ikke Anne som fikk jobb-en.
   It was not Anne that got job-DEF
   ‘It was not Anne who got the job.’

c. Kanskje det var Anne som fikk jobb-en.
   Maybe it was Anne that got job-DEF
   ‘Maybe it was Anne who got the job.’

d. Hvis det var Anne som fikk jobb-en, er hun heldig
   If it was Anne that got job-DEF is she lucky
   ‘If it was Anne who got the job, she’s lucky.’

e. Noen fikk jobb-en.
   Someone got job-DEF
   ‘Someone got the job.’

Non-clefted sentences do not straightforwardly trigger the same presupposition. However, as the clefted constituent is always focused, neither is it straightforward to claim that this presupposition is a property of clefts rather than of focus more generally. Beaver et al. (2017) refers to the existential presupposition of focus, and give an account based on their Question Under Discussion (QUD) approach. (28) shows that we can get the same pattern as in (27) simply by placing in situ focus on “Anne”.

(28) a. ANNE fikk jobb-en.
    ANNE got job-DEF
    ‘ANNE got the job.’

b. ANNE fikk ikke jobben.
    ANNE got not job-DEF
    ‘ANNE didn’t get the job.’

    Maybe ANNE got job-DEF
    ‘Maybe ANNE got the job.’

d. Hvis ANNE fikk jobben, er hun heldig.
If ANNE got job-DEF is she lucky

‘If ANNE got the job, she is lucky.’

It is possible that if clefts are a way of expressing focus, and focus triggers an existential presupposition, the fact that clefts trigger an existential presupposition is simply a special case of the fact that focus triggers an existential presupposition. On the other hand, there does appear to be a difference between the two sets of sentences; the existential presupposition is easier to cancel in the sentences with in-situ focus than in the cleft sentences. Abusch (2009), discussing these phenomena in English, refers to the former presupposition as “soft” and the latter as “hard”, because of their difference in cancellability.

### 2.2.3 Exhaustivity

A listing of elements is exhaustive if it contains all the elements that could potentially be listed, i.e. if there is no potential list element that is not on the list. Cleft sentences are often claimed to have an exhaustivity property. If they do, that would mean that they somehow convey that the clefted constituent is the only thing(s) for which the asserted predication holds. For a sentence like (29) that would mean that an addressee could somehow infer that the professor does not think this is a situation where different parties are equally to blame, and that Europe is simply one of them, instead it must be the professor’s opinion that Europe is the sole guilty party.


   It is Europe that has guilt-DEF mean-NPST professor-DEF

   ‘It is Europe that is to blame, in the professor’s opinion.’

   (AV01Af930072.34)

This claimed exhaustivity property is probably the one aspect of the meaning of clefts that has received the most attention in the literature. Most of the current English language literature on the meaning of clefts assume that they do have an exhaustivity property (see e.g. Destrue et al. 2015, Büring and Kriz 2013), and so does most of the Scandinavian literature, both contemporary and older (see e.g. Lundeby 1967, Lie 1976, NRG, GDS).

I consider the exhaustivity property of declarative clefts to be proven to a satisfactory degree at this point. This thesis will thus follow in this tradition and assume clefts have an
exhaustivity property. That Norwegian cleft sentences do indeed convey exhaustivity can be seen in the way the sentences in (30) are self-contradictory.

(30) a. #Det var Anne som ble ansatt, og det ble Linda og Jon også.
   It was Anne that became hired, and it became Linda and Jon too
   ‘#It was Anne that was hired, and so was Linda and Jon.

b. #Det var i går vi så en elg, og det har vi gjort hver
dag den siste uka.
   It was in yesterday we see.PAST a moose and that have we done each
day the last week
   ‘#It was yesterday we saw a moose, and we have seen one every day this week.’

A more precise definition of exhaustivity in the context of cleft sentences than the one given in the first paragraph of this section, is that a sentence is exhaustive if and only if it conveys that among its relevant focus alternatives, only the one asserted is true. A sentence like (30a) gives rise to a contradiction, because the cleft sentence asserts that Anne was hired, thereby at the same time communicating that that is not true for anyone else among the relevant focus alternatives to Anne. Since Linda and Jon are both among these focus alternatives, (30a) is a contradictory statement.

The exhaustivity of clefts is not undefeatable, however. Destruel et al. (2015, p. 140) and Horn (2016, p. 121) both cite this stanza from the famous poem and song Bread and Roses by James Oppenheimer, the last line of which does not cause the kind of contradiction and ill-formedness found in the sentences in (30), in spite of being a very similar construction.

(31) As we come marching, marching, un-numbered women dead
Go crying through our singing their ancient call for bread,
Small art and love and beauty their trudging spirits knew
Yes, it is bread we fight for, but we fight for roses, too.

A Norwegian translation of this sentence would be just as acceptable and is given below.

(32) Ja, det er brød vi kjemper for, men vi kjemper for ros-er også.
Yes it is bread we fight for but we fight for rose-PL too

This defeasibility has been central to a discussion that has been prominent in the literature, concerning the source of the exhaustivity property and whether it should be considered to be semantic or pragmatic in nature. The semantic side of the debate argues either that the
exhaustivity is in fact a part of the assertion, or the at-issue content, of cleft sentences (e.g. Atlas and Levinson, 1981) or that it arises due to a combination of a presupposition and the assertion (e.g. Percus 1997, Büring and Kriz 2013). The pragmatic side of the debate, meanwhile, argues that the exhaustivity inference is a conversational implicature (e.g. Horn 2016).

Destruel et al. (2015) represents a change of focus, as they argue that the relevant question is not the source of the exhaustivity inference (either semantics or pragmatics), but rather its status, as either at-issue (“asserted”, “proffered”) or non-at-issue. They investigate this by looking at how speakers of French, English, German and Hungarian would deny the exhaustivity, if they would use replies starting with “yes, and”, “yes, but” or “no”. In all four languages, speakers preferred, by a wide margin, to do this either with “yes, and” or “yes, but”. Destruel et al. argue convincingly that this shows that the exhaustivity property of clefts in English, German and French and the preverbal focus in Hungarian is a kind of non-at-issue content. For Norwegian cleft sentences as well, it is certainly better to deny the exhaustivity inference by use of sentences starting with either ja, og ‘yes, and’ or ja, men ‘yes, but’, than with sentences starting with nei ‘no’. In (33) B1 and B2 are significantly better responses to A than B3 is.

(33) A: Det var Anne som ble ansatt.
   ‘It was Anne that became hired.’
   B1: Ja, og Linda ble også ansatt.
      ‘Yes and Linda became also hired.’
   B2: Ja, men Linda ble også ansatt
      ‘Yes but Linda became also hired.’
   B3: Nei, Linda ble også ansatt.
      ‘No Linda became also hired.’

Unlike the existential presuppositions discussed in the previous section, exhaustivity is a property that separates cleft sentences from sentences with in situ focus. Both (34a) and
(34b) give rise to the existential presupposition that someone was hired, but unlike (34a), (34b) also gives rise to the inference in (34c), i.e. that no one else other than Anne was hired.

(34) a. ANNE ble ansatt.
   ‘ANNE was hired.’

b. Det var Anne som ble ansatt.
   ‘It was Anne that became hired.’

c. Ingen andre enn Anne ble ansatt
   ‘No one other than Anne was hired.’

The exhaustivity inference, then, cannot be explained simply by referring to the clefted constituent being focused\(^1\), but must be considered a unique property of the cleft construction itself.

Büring and Kriz (2013) analyse the exhaustivity property as the result of a presupposition, giving a somewhat abstract phrasing of this presupposition. Their claim is that an English cleft sentence on the form *It is x that* \(P\) presupposes that x is not a proper mereological part of the maximal individual for which \(P\) holds. That something is not a proper mereological part of something else means that it is either not part of it at all, or else it is identical to it in its entirety. The maximal individual for which \(P\) holds is, informally, the same as the set of all the individuals for which \(P\) holds. What Büring and Kriz’ presupposition means, then, is that either the predicate does not hold for x, or x denotes everything (relevant) for which the predicate holds.

In this thesis, exhaustivity will be analysed as a presupposition in the style of Büring and Kriz.

\(^1\) Unless, of course, one sees the focus on clefted constituents in cleft constructions to be of a special kind, and include an exhaustivity property, see section 2.2.1 on focus. Though one could argue that this does not constitute a proper explanation, but rather simply a description of the facts.
2.2.4 Similarity to identity statements

Einar Lundeby (1967, [1976] 1994) lists three criteria that a Norwegian cleft sentence must fulfil. The first has to do with syntax and word order, the second is that the sentence must have a simplex non-cleft sentence as a possible paraphrase. Lundeby’s third and final criterion is that, semantically, the predicative and a content element in the subordinate clause must relate to each other as the two parts of an identity statement (Lundeby [1976] 1994, p. 178). What Lundeby calls the predicative is the element that is called the clefted constituent in this thesis. Thus, Lundeby puts as a criterion of “clefthood” that the meaning of the sentence is comparable to that of an identity statement, i.e. that there is an identity relation between the clefted constituent and at least a part of the cleft clause.

Lundeby ([1976] 1994) gives (35) (his [1]) as an example of a Norwegian cleft sentence that meets all three criteria. For the current purposes, the crucial part is that the meaning of the sentence can be paraphrased as “Bjørnson = The person who wrote “Arne”.

(35) Det var Bjørnson som skrev “Arne”.
   ‘It was Bjørnson that wrote “Arne”.

Beyond the synchronic semantic link, Lundeby ([1976] 1994) claims that there are no attested cleft sentences from Old Norse, and that the construction probably developed from identity statements around the 14th century, as that is when the first attested examples of it can be found, for all the Scandinavian languages. His account is thorough, and if it is true, it strengthens his claim that cleft sentences are in some sense equivalent to identity statements, as that would be natural if the former has developed from the latter.

More recently, Büring and Kriz (2013) claim a kind of equivalence between clefts in English and identity statements. Their account is more formal and aimed primarily at explaining the exhaustivity property of clefts (see section 2.2.3). However, they arrive at the insight that the puzzling behaviour of exhaustivity in cleft sentences also applies to identity statements with definite descriptions, and that the fact that the behaviour is puzzling is actually due to an incomplete understanding of definite descriptions, as they believe that the two constructions are underlyingly the same.
That there is a close relationship between clefts and statements of identity can also be deduced from the fact that Kiss (1998) calls the kind of focus that, on her view, can be found in clefts and only in clefts, “identificational” focus (see section 2.2.1). Furthermore, she describes what this focus does as “[the set denoted by the focused constituent] is identified as the exhaustive subset of this set for which the predicate phrase holds.” (emphasis mine) (Kiss 1998, p. 245).

It seems clear, then, that both in Norwegian and in English, clefts are semantically equivalent to identity statements with definite descriptions, or alternatively, that they can be considered an alternative way to phrase such an identity statement.

A speaker who utters an identity statement with a definite description, must assume, in order for their utterance to make sense (i.e. they must presuppose), not only that the referent of the definite description exists, but that it is uniquely identifiable in the context. That this can in fact be called a presupposition, is clear from the fact that the same is true for a speaker who denies an identity statement with a definite description, or asks after the identity of a definite description. In other words, (36a-c) all presuppose that den som skrev “Arne” “the one who wrote “Arne”” is a person who exists, and is uniquely identifiable, that there is not, for example, two literary works called “Arne” with two different authors, who the speaker is equally likely to refer to in the given context.

(36) a. Den som skrev “Arne” var Bjørnson
   that that wrote “Arne” was Bjørnson
   ‘The one who wrote “Arne” was Bjørnson.’
   b. Den som skrev “Arne” var ikke Bjørnson.
      that that wrote “Arne” was not Bjørnson.
      ‘The one who wrote “Arne” was not Bjørnson’
   c. Hvem var den som skrev “Arne”?
      Who was that that wrote “Arne”?
      ‘Who was the one who wrote “Arne”?'

While a question like this is not impossible, a cleft question would without a doubt be a more natural way to phrase this question. This fact further strengthens the idea that clefts are identity statements.
As the definite description in identity statements corresponds to (at least a part of) the cleft clause in cleft sentences, and since cleft sentences and identity statements are equivalent, this presupposition of unique identifiability must hold also for clefts.

2.3 The meaning of questions

There are two possible approaches to the meaning of questions. One is to ask what a question denotes, the other is to ask what it is to ask a question. Clearly, the answers to these two questions are connected to, and depend on, each other, but the questions are nonetheless distinct from one another. Section 2.3.1 deals with the latter while the former is addressed in 2.3.2. Section 2.3.3 introduces the distinction between mention-all and mention-some questions, while 2.3.4 is about the role of focus in wh-questions.

2.3.1 What is it to ask a question

Intuitively, questions are requests for information. Asking someone a question is to request that they provide you with information about how the world works. Questions, then, appear to have a lot in common with imperatives, which are requests that the addressee act a certain way. In the case of questions, the way in which the addressee is requested to act is to provide information to the speaker.

The conceptualisation of questions as a kind of imperatives is not new, and this is the approach of e.g. Hintikka (1974). Hintikka (1974, p. 108) takes the general logical form of a question to be something like what is given in (37) below. In other words, Hintikka considers the underlying logical form of a question to be an imperative.

(37) Bring it about that (I know that P₁ or I know that P₂ or…or I know that Pₖ)

There are more things to note about this formalisation than the use of the imperative. The part in brackets is what Hintikka calls the desideratum of the question, or in other words what the speaker hopes will be accomplished by asking the question. This desired state of affairs is identified as the speaker knowing something, more precisely as the speaker knowing at least one of a set of propositions.

Truckenbrodt (2000) points out that this conceptualisation of questions is unable to account for questions that are asked when the speaker already knows the answer, and that
are in fact asked by speakers who already know the answer. This is the case for e.g. rhetorical questions, pedagogical questions and exam questions. Truckenbrodt argues that the desideratum of a question is not that the speaker knows the answer to the question, but that the answer to the question is in the common ground. Truckenbrodt (2000, p. 10), then, phrases the meaning of the questions “is it raining?” as in (38).

(38) I want that we know together [whether it is raining]

What is meant by “know together” here, is not simply that both the speaker and the addressee have this knowledge, but rather that it is common ground, or in other words, that the speaker knows, and the addressee knows, and the speaker knows that the addressee knows, and the addressee knows that the speaker knows that the addressee knows, and so forth (see Stalnaker 1974). Such an interpretation of the desideratum of questions is advantageous because it is able to capture all the question types in table 1 without introducing any special machinery (adopted from Truckenbrodt 2000, p. 10).

<table>
<thead>
<tr>
<th>The speaker’s goal when asking</th>
<th>Question type</th>
</tr>
</thead>
<tbody>
<tr>
<td>The speaker knows P</td>
<td>The question speech act in the narrowest sense (information-seeking question)</td>
</tr>
<tr>
<td>The addressee knows P</td>
<td>Pedagogical question</td>
</tr>
<tr>
<td></td>
<td>Rhetorical question</td>
</tr>
<tr>
<td></td>
<td>Monologue question</td>
</tr>
<tr>
<td>The speaker knows that the addressee knows P</td>
<td>Exam question</td>
</tr>
</tbody>
</table>

*Table 1: Different question types in Truckenbrodt’s framework*

### 2.3.2 The denotation of questions

The denotation of a declarative sentence is a proposition, which is to be understood as a set of possible worlds, or more specifically as the set of possible worlds where the truth conditions of the sentence are met, and the sentence is true. The dominant theory regarding the denotation of a question, is that it is a set of propositions, that is, a set of sets of possible worlds. This fundamental idea can be implemented in different ways, the three most influential being those of Hamblin (1973), Karttunen (1977), and Groenendijk and Stokhof (1984).
Hamblin’s approach, which appears to be similar to Hintikka’s understanding, is that the denotation of a question is the set of propositions that could potentially answer the question, regardless of whether or not they are true. That is, a question denotes the exact same set of propositions no matter what the world is actually like. As an example, the Norwegian question in (39a) denotes the set in (39b), regardless of whether it was Anne, Linda or someone else entirely who was actually hired.

(39)  
a. Hvem ble ansatt?
   Who became hired
   ‘Who was hired?’
   b. \{x was hired : x is a person\} = \{Anne was hired, Linda was hired...\}

This fact, that the question denotes the same set regardless of what is true, is what sets Hamblin’s approach apart from Karttunen’s (1977). Karttunen too, views the denotation of a question as a set of propositions, but in his case, this set consists only of the true answers to the question. Under Karttunen’s approach, then, the denotation of the question in (39a) would be the set given in (40).

(40)  \{x was hired : x is a person and x was hired\}

Hamblin was concerned only with matrix questions, while Karttunen’s starting point was indirect or embedded questions, precisely because a matrix question can be understood as a declarative sentence with an embedded question, as in (37). One of Karttunen’s arguments that only the true propositions should be considered elements in the denotation set of a question is that the English verb *tell* with a that-complement does not entail that what is told is true, whereas it does if the complement is an indirect question.

The approaches of Hamblin (1973) and Karttunen (1977) have in common that each proposition in the denotation set of a question is based on only one individual. In other words, if both Anne and Linda were hired, the Hamblin denotation would be as in (38b) and the Karttunen denotations would be \{Anne was hired, Linda was hired\}. Neither would contain the propositions “Anne and Linda were hired” as a single element of the set.

This quality sets the approaches of both Hamblin and Karttunen apart from the approach of Groenendijk and Stokhof (1984). Here the denotation of a question, instead of simply being a set of propositions, is a partition of the set of possible worlds. In set theory, a partition of a set
A is a set of subsets of A such that their union is A and all of their intersections are empty. Elements that belong to the same cell of a partition have an equivalence relation between them, in other words they can be said to be equivalent judging by a set criterion. In Groenendijk and Stokhof’s theory of questions, this equivalence relation holds between possible worlds where the true answer to the question is the same. For a question who G’s the partition can be represented as in figure 1 (Groenendijk and Stokhof, p. 146).

<table>
<thead>
<tr>
<th>Nobody G’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>a₁ is the one that G’s</td>
</tr>
<tr>
<td>a₂ is the one that G’s</td>
</tr>
<tr>
<td>a₁ and a₂ are the ones that G</td>
</tr>
<tr>
<td>...</td>
</tr>
<tr>
<td>Everybody G’s</td>
</tr>
</tbody>
</table>

*Figure 1: The partition denoted by the question who G’s*

It is worth noting that this means that for Groenendijk and Stokhof a given question can only have one true answer in a given world. This is the case because an answer, in order to count as the true answer, must be exhaustive.

### 2.3.3 Mention-some and mention-all questions

Groenendijk and Stokhof’s (1984) insistence that the true answer is exhaustive is especially interesting because of the discussion that exists surrounding the distinction between so-called mention-some and mention-all questions (see e.g. George 2011). Mention-some questions are questions that are answered to a satisfactory degree if one true proposition that answers the question is identified, even if there might be more. Mention-all questions on the other hand, require an answer that does not, so to speak, leave behind any true propositions that answer the question. In other words, a mention-some question is satisfied if it is answered by one of the propositions that are elements in its Karttunen-set, while a mention-all question requires the proposition that is considered its true answer by Groenendijk and Stokhof.

### 2.3.4 Focus in wh-questions

Questions are often considered to carry an existential presupposition. As discussed in section 2.2.1, one definition of focus is that it is the complement of the presupposition, that what is not presupposed in a sentence is its focus. Since everything but the wh-phrase is typically considered presupposed in wh-questions, that leaves the wh-phrase as the focus. And that the wh-phrase is always focus in wh-questions is indeed a traditional claim (Cable, 2017). Also
following Krifka’s (2008) definition of focus, as indicating the presence of alternatives, one could consider the wh-phrase to be a focus, as it certainly involves alternatives. Beck (2006) claims that wh-phrases play the same role as focused phrases and differ from them only in not having an ordinary semantic value.

Erteschik-Shir (1986) argue, however, that the wh-phrase is only really a focus in echo-questions. The phrase that replaces the wh-phrase in an answer to the question is certainly the focus of that answer, but according to Erteschik-Shir, it does not follow from this that the wh-phrase is the focus of the question. Instead, almost any part of a wh-question can be its focus, just as for declarative sentences, and differences in focus gives rise to differences in the meanings of the questions. Cable (2017) also argues that it is not the case that wh-phrases are obligatorily focused. One of his arguments, is that in embedded questions, wh-phrases do not typically receive the pitch-accent associated with focus. Erteschik-Shir claims this is the case also in matrix questions.

Consider the questions in (41). In both the non-cleft question in (41a) and the cleft question in (41b) it is possible to stress “Pål” (or assign it the pitch accent associated with focus), so that the question must be interpreted as asking when Pål was the one to do such a thing, maybe because such an action is unlike him. If, for example the direct object had received this stress instead, the questions would have asked when it was a book that he gave her, maybe as opposed to the toys he typically gifted her.

(41) a. Når ga Pål Mari ei bok?
   When gave Pål Mari a book
   ‘When did Pål give Mari a book?’

b. Når var det Pål ga Mari ei bok?
   When was it Pål gave Mari a book
   ‘When was it that Pål gave Mari a book?’

Following Erteschik-Shir (1986) and Cable (2017) it is this stressed phrase, which is not necessarily the wh-phrase, that is the focus of wh-questions.

As is clear from (41), cleft and non-cleft questions behave the same here. Following this argument, then, it is not the case that the wh-phrase is always the focus of cleft questions, but not of non-cleft questions. One must either interpret the wh-phrase of a wh-questions to
always be some kind of focus, in both cleft and non-cleft questions, or the wh-phrase is not necessarily focused in neither non-cleft questions nor cleft-questions.
3 Methodology

An analysis, no matter how clever, is never better than the data it is based on. If I am to have any hope of presenting an analysis of Norwegian cleft questions that explains the facts, I need to be correct about the facts. Therefore, choosing the correct methodology is vital. Bad methodology results in bad or misleading data, or in drawing the wrong conclusions from technically correct data, which leads to wrong generalisations, which inevitably leads to incorrect analyses.

Moyer (2008) points out that choice of methodology is intimately connected to one’s philosophical view of the object of study of linguistics, that is, language. The article is written from the point of view of research on bilingualism, but it applies to linguistics more broadly when she writes that “The various types of knowledge that dominate the field at the present time are construed on the basis of different philosophical conceptions of language that dictate what gets counted as data” (Moyer 2008, p. 19). She describes four distinct perspectives on language, that she terms “language as form and structure”, “language as competence and tacit knowledge”, “language as production and perception” and “language as social action and practice”. Which philosophical approach one takes to language, determines both what questions are interesting and what kinds of data counts as answers to those questions.

Rather than seeing Moyer’s four perspectives as competing with one another, it is possible to see them instead as different aspects of the same phenomenon, that of human language, brought into focus by different perspectives and research traditions. Not all work in linguistics has to see language from all four perspectives. This thesis, for example, does not at all focus as language as social action, yet that is undeniably an aspect of language. Out of Moyer’s four perspectives, this thesis will look at language both as form and structure and as competence and tacit knowledge. The other two perspectives are no doubt also important in order to obtain a complete understanding of Norwegian cleft questions, but they are not the perspectives taken by this thesis.

Moyer mentions quantitative analysis as natural if one sees language as form and structure, while judgments and intuitions are more interesting if one is investigating language as competence and tacit knowledge. Both quantitative analysis and judgment data are utilized in this thesis. The form and structure of language and the competence and tacit knowledge of language users are closely tied together, and it is beneficial for the purpose of this thesis to
examine cleft questions from both of these perspectives, so that they can shed light on each other.

My main source of data is a corpus called Leksikografisk Bokmålskorpus (LBK), assembled and maintained by the Text Laboratory at the University of Oslo. LBK is a written corpus of Norwegian Bokmål that contains approximately 100 million words from 1958 to 2013. It is grammatically tagged with the Oslo-Bergen tagger and searchable using the Glossa interface. LBK is a balanced corpus with texts from different genres, and is made up of 45% nonfiction, 35% fiction, 10% newspapers and periodicals, 5% tv-texting and 5% unpublished material and other. This balance is based on estimates of what an “average reader” comes into contact with (Knudsen and Fjeld 2013).

As mentioned, LBK is a written corpus of Norwegian Bokmål. Writing is in general different from speech, and written corpora can only give a somewhat limited insight into how people actually speak. In addition, it only includes one of the two forms of written Norwegian. Bokmål is a written standard originally based on Danish, and it is possible, and even likely, that it retains some features and turns of phrase that are more typical of Danish than of spoken Norwegian.

Furthermore, written corpora present unique challenges when working on questions. Questions are frequent in spoken communication, however, spoken communication is not what written corpora are made up of. Rather, they mostly contain longer texts written by a single author. While spoken language mostly take the form of dialogue, written language is instead a made up mostly of monologue. This is of course not an absolute truth, and with modern technology it is also in a state of change, but it is true for the majority of the written material that makes up LBK. Questions must, by necessity, play a different role in this kind of language than they do in spoken language.

However, written corpora typically give cleaner results, and they also typically simply contain more material than spoken corpora, which can be important. LBK contains almost 100 million words, which is many times more than spoken corpora of Norwegian, like NoTa Oslo and the Norwegian part of the Nordic Dialect Corpus. Furthermore, Åshild Søfteland (2013) already did great research on clefts in Norwegian spontaneous speech by making use of spoken corpora, and her findings and conclusions are available in her dissertation. Her
research was not focused on questions in particular, but it does also cover questions, and I will refer to her work where relevant.

The corpus material from LBK is invaluable and the main source of data for this thesis. However, corpora can only give information about what is common and uncommon, not about what is impossible. Knowledge about what is impossible is a crucial element in the forming of an analysis, one that cannot be provided by the LBK data alone. For this reason, I depend also on some amount of judgment data.

In the past, much important work in linguistics relied entirely on the intuitions of the researcher. As a method, it has given linguistics much invaluable knowledge, but it is not without its pitfalls. The researcher is only one person, and basing generalisations on data from only one informant can be dangerous. Furthermore, it has been shown that the grammaticality judgments of linguists differ slightly but significantly from those of non-linguists, or so-called naïve informants (Dąbrowska 2010). In addition to this, a researcher typically has ideas and hypotheses about the phenomenon they are investigating, and it can be easy to see only what one wants to see.

For the reasons described in the previous paragraph, I have considered it important to consult with other native speakers of Norwegian about the judgment of specific sentences. Due to limitations in time and resources, these consultations have not been as extensive or systematic as one might have wished, but no judgement call has been made by me alone.

Lambrecht (1994) points out that scholars often work with constructed examples that would not necessarily be natural in speech. Furthermore, constructed examples can never be given the same rich context as utterances have in actual language use, and context is vital for the analysis of different kinds of meaning. On the other hand, constructed examples can be made to illustrate a phenomenon clearly and perfectly. This is an advantage, as examples from language use are often messy and maybe contain several phenomena at once. Constructed examples can be an effective way of communicating a point.

Unfortunately, this advantage also comes with a disadvantage. When examples are constructed to perfectly illustrate a point, it obscures the fact that reality almost always is more complex. Theories might look attractive and straightforward when applied to carefully constructed examples, but break down upon meeting language the way it is actually spoken.
For this reason, constructed examples have been avoided as much as possible throughout the remainder of this thesis.

All Norwegian example sentences, both constructed and from the corpus material, have interlinear glossing to English. However, this glossing is cruder than a proper morpheme-by-morpheme glossing should be. This is a conscious choice, for two reasons. First, Norwegian and English are closely related languages, and a more detailed glossing would simply not be necessary for a reader who speaks English to be able to understand the structure of the Norwegian sentences. Second, including more details in the glossing would have made the examples more cluttered and distract from the points that they are intended to illustrate.

I conducted one main search in LBK and the results of this search is what I refer to as “my material” in the remainder of this thesis. I searched LBK for instances of a sentence initial word starting with hv-, followed by some form of være, followed by det, followed by a noun or pronoun no more than two words later, followed by a finite verb no more than two words after that, as well as instances of sentence initial words starting with hv-, followed by some form of være, followed by det, followed by at no more than two words later, and finally also instances of sentence initial hv-, followed by some form of være, followed by det, followed by som no more than two words later, followed by a finite verb. The Glossa interface allows me to do all of this in one search. These search terms were chosen to be as specific as possible, in order to avoid getting too many irrelevant hits, while simultaneously being as general as possible, in order to find as many of the cleft questions in the corpus as possible.

This search does not return all instances of cleft questions in the corpus. Most obviously, it does not include those questions that start with når ‘when’, as that is a question word that does not start with hv-. It similarly excludes åssen, an alternative form to hvordan ‘how’. These question words were excluded simply on the grounds of the search enquiry already being rather complicated, in addition to åssen being a rare form in print, hvordan being more than 90 times more common (Kola 2014). Questions starting with hvilke/-n/-t ‘which’ were also in practice excluded, since the search did not allow for words between the question word and the form of være, and questions with hvilke/-n/-t normally have a noun phrase directly following the wh-word, as for English which. The questions in (42) and (43) below are examples of cleft questions in the corpus that were not included in the original search, and were therefore not a part of my material. (42) because når ‘when’ does not start with hv-, and (43) because øyeblikk ‘moments’ come between the question word and er.
Når er det du kjenner smak-en av knekke-brød-et?
‘When is it that you feel the taste of the crispbread?’
(SA01FaNi01.3902)

Hvilke øyeblikk er det som styr-er våre liv?
‘Which are the moments that govern our lives?’
(AV02BT950331089.1)

Furthermore, the search does not include cleft questions where there are more words between
the search words than specified above. This excludes e.g. questions like (44) where the noun
after det is preceded by a determiner and a modifying adjective.

Hva er det den stor-e industri-mann-en ønsker å fortelle?
‘What is it that the big industry man wants to say?’
(SA04SoDa01.2922)

Despite these limitations, a corpus search such as this one is a good and efficient way to
gather many examples of cleft questions, while minimizing the number of irrelevant hits in
the material.

The results of this main search were downloaded to a file in Microsoft Excel. Since the
same question could fill several of the search criteria, the original Excel-file contained a high
number of duplicate sentences. Duplicates were defined as hits with the same sentence-ID. A
copy of the original file was retained, while the duplicates were removed from a different
copy. This duplicate-free file contained 3151 hits. Not all of these hits where actually cleft
questions. My search criteria also let through e.g. some questions asking for the identity of a
definite description using a superlative. All 3151 questions were manually analysed, to
determine whether or not they contained a cleft. Manual analysis always leaves room for
error, especially when the analysis is done by only one person. However, there is no better
way to separate actual cleft questions from questions that are superficially similar to clefts.
Whether or not the questions were cleft questions was annotated for in a separate column, ja
denoted cleft questions and nei denoted questions that did not contain clefts. In total, as many
as 3027 of the 3151 questions actually contained clefts, as can be seen from table 2.
<table>
<thead>
<tr>
<th>Cleft</th>
<th>Non-cleft</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>3026</td>
<td>96.03 %</td>
<td>125</td>
</tr>
</tbody>
</table>

Table 2: Percentage of clefts in my material after the removal of duplicates

Most of the quantitative analysis of this material was done in Jupyter notebooks by way of coding in the Python programming language. I imported the packages pandas, for dataframe functionality, numpy, mainly for logical expressions, and re, for regular expressions. In addition to the functionality offered by these packages, some functions were written specifically for this project. `find_occurrences()` finds the rows in the dataframe where the specified string can be found in the specified column. `get_matching()` returns a shallow copy of the original dataframe containing only the rows found by `find_occurrences()`. In order to avoid these functions returning an error when the dataframe contained NaN, i.e. when the excel-file had empty cells, it was necessary to also write an adapted search function, `robust_search()`, which returns `False` if it is asked to search in something that is not a string type.

This functionality was used to find all the rows in the duplicate-free excel files that had been annotated as containing clefts, and to create a new Excel-file with only these rows. In other words, I created an Excel-file with only unique cleft questions. This file was used as a starting point for the remainder of the quantitative analysis.

All of the questions in this file was annotated for question word. This was done efficiently with the functionality offered by Microsoft Excel.

The pandas package for dataframes contains a method `df.sample()` which takes an integer n as argument. This method returns a new dataframe, consisting of n random rows from the original dataframe. I used this method to create a file with 500 randomly chosen cleft questions from my material. These cleft questions were then annotated for the complementizer used to introduce the cleft clause (either `som`, `at` or `Ø`), and for the type of the question.

Annotating for question type (rhetorical questions, surprise-disapproval questions, `again`-questions, etc) is challenging, both because the “same” question might be of two different types in two different contexts, and because the borders between the different kinds of special
questions are not always clear. In addition to this, some questions can rightfully be categorized as two kinds of questions simultaneously. For these reasons, this annotation was not used as a basis for statistical analysis, but rather to create a small database of questions of different kinds from actual language use.

In addition to this main corpus search I also conducted several smaller supplementary searches in LBK. All but two of them were carried out in order to find examples from actual language use of constructions that would necessarily not be in my material, e.g. non-cleft questions. The search results were not downloaded and saved in these searches, nor were they used for statistical analysis. The other two supplementary searches were made in order to have sufficient data on can’t-find-the-value-of-x questions (CFVQs, questions like Where on earth are my glasses? see section 4.3.3) and again-questions (questions like What was your name again? see section 4.3.5), and the data from these searches were downloaded to separate Excel-files and analysed using Jupyter.

The search terms for used to obtain data on CFVQs were sentence initial hva i ‘what in’, hvem i ‘who in’, hvordan i ‘how in’ and hvorfor i ‘why in’. The idea was to search for sentence initial wh-elements followed by the preposition i ‘in’, because CFVQs in Norwegian often contain expressions like i all verden ‘in all the world’ or i himmels navn ‘in heaven’s name’. Only specifying the initial preposition ensures that all such expressions are included, including the ones I would not have thought of. Unfortunately, it also allows hits where what follows the preposition is not such an expression, but instead a place, institution or similar. Hvor ‘where’ was excluded from the search for this reason, to minimize the amount of noise. All 831 results were examined manually. Questions that were not CFVQs were deleted and the remaining questions were annotated for whether or not they contained a cleft.

The corpus search conducted specifically about again-questions was on a far smaller scale. LBK was searched for sentence initial hva ‘what’ followed by up to four unspecified words followed by some form of hete ‘be called/named’, followed by up to two unspecified words followed by igjen ‘again’. The verb hete was chosen because it is a frequent verb in again-questions, and in order to avoid irrelevant hits. The 29 hits were downloaded and annotated for tense and for whether or not they contained a cleft.

Using Jupyter Notebooks and the previously described functions written in Python made it easy and efficient to count e.g. how many cleft questions there were with each wh-element, or
how many of the cleft questions contained the non-past *er* contra the past tense *var*. Statistical hypothesis testing, to make sure apparent differences represent actual underlying differences and are not merely by chance, was carried out in R. Depending on the nature of the results, either `prop.test()` or `chisq.test()` was used. The first tests whether the difference between two proportions is significant (Baayen 2008). This was used to test whether the distribution of a feature, e.g. wh-elements, was significantly different from its distribution in LBK at large. The second test is a $\chi^2$-test. It was used to test whether a distribution was significantly different from the uniform distribution, i.e. whether the differences in distribution were significant.

That a difference is statistically significant does not mean that it is certain to be a result of underlying difference. The p-value obtained by statistical hypothesis testing only gives the probability of the given outcome if the null-hypothesis is true (Baayen 2008, Gries 2013). In other words, a small p-value means that a difference this large or larger would have been unlikely if there was no underlying difference. Unlikely is not the same as impossible, and unlikely events are known to occur. Furthermore, “statistically significant” means different things for different scholars and in different fields. In the humanities, a result is typically considered statistically significant if $p<0.05$, or in other words, if the likelihood of the obtained result given the null hypothesis is less than five percent (Gries 2013, Baayen 2008). Rather than simply stating that a result is or is not statistically significant, I have chosen to report all my p-values, so the reader can reach their own conclusions regarding the significance of a result.

To sum up, this thesis is based mainly on corpus data from the LBK, supplemented by judgment data where appropriate. The corpus data serves two needs, as it both provides genuine examples and quantitative data to be analysed statistically. This choice of combined methodology is made natural by looking at language as both structure and form and competence and tacit knowledge.
4 The use of clefts in Norwegian wh-questions

The goal of this chapter is to provide a description of how often and in what contexts and kinds of questions clefts are used in Norwegian wh-questions. Section 4.1 provides a quantitative description of cleft questions in Norwegian. Section 4.2 describes the basic pattern regarding optionality and obligatoriness as it is in information seeking questions, and 4.3 deals with various kinds of special questions. The chapter closes with a summary of the pattern in 4.4.

4.1 Quantitative description

The number of hits obtained from LBK supports the idea that clefts are relatively common in wh-questions in Norwegian, especially considering that cleft questions are often considered a predominantly spoken phenomenon (NRG) and LBK is a written corpus.

Venås (1978) claims that clefts are especially common in questions in Norwegian when the wh-element is *hvem* ‘who’. My material, summarized in table 3 below, supports this claim to an extent, as it is true that *hvem* ‘who’ makes up a larger proportion of the wh-elements in cleft questions (13.55 %) than of sentence initial wh-words in general (8.79%). This difference is statistically significant, with $p < 2.2 \times 10^{-16}$. However, as is clear from table 3, which shows the distribution of different question words among the 3027 questions that contained clefts, it is *hva* ‘what’ that is the by far most common wh-element, making up as much as 83.48 % of the questions. This is also significantly more than would be expected given the distribution of sentence-initial wh-words in the corpus as a whole. This difference in proportion is statistically significant at the same level as the difference for *hvem* ‘who’.

While *hva* ‘what’ and *hvem* ‘who’ are significantly more common among the cleft questions in my material than they are generally, *hvor* ‘where’, *hvordan* ‘how’ and *hvorfor* ‘why’ are significantly less common, all with the same low p-value. *Hvilke* ‘which, pl.’, is also less common in my material, as it occurs only once. However, the search terms did not allow for instances of *hvilke* (or *hvilt* ‘which, sg, neuter’. or *hvilken* ‘which, sl, m/f) like it is normally used, followed by a noun in a complex wh-phrase. For this reason, the single instance of *hvilke* ‘which, pl.’ has been removed for these calculations.
While it is true that *hvem* ‘who’ occurs more often sentence-initially in cleft questions than in general, it can hardly be said to be the case that cleft questions in Norwegian are especially common with *hvem*, when *hvem*-questions only makes up between 13 % and 14 % of the cleft questions. Rather, it seems to be the case that cleft questions are used more often to ask for arguments, and less often to ask for adjuncts. It is possible, in Norwegian, to use a cleft question to ask for virtually any constituent in the sentence, yet it seems Norwegian speakers are by far more likely to do so if they are asking for either a subject, object or complement of a preposition (such as *Mary* in the English sentence *I gave it to Mary*) than if they are asking for an adverbial.

The design of the corpus search was such that it did not allow for complex tenses, only the two simple ones, past and non-past, sometimes called past and present. However, even conducting new searches in LBK to specifically look for examples of cleft questions in complex tenses, I was unable to find a single example. This does not mean that cleft questions are impossible with other tenses, and such questions can easily be constructed, but it does indicate that cleft questions are very rarely used with tenses other than the simple past and non-past. This result from the written corpus of LBK also corresponds well with Søfteland’s (2013) findings for spontaneous speech.

Of the two simple tenses, non-past was the most common, making up roughly two thirds of the material. The distribution of the two tenses can be seen in table 4.

<table>
<thead>
<tr>
<th>Wh-element</th>
<th>My material</th>
<th>LBK in total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td><em>Hva</em></td>
<td>2525</td>
<td>83.47 %</td>
</tr>
<tr>
<td><em>Hvem</em></td>
<td>410</td>
<td>13.55 %</td>
</tr>
<tr>
<td><em>Hvor</em></td>
<td>53</td>
<td>1.75 %</td>
</tr>
<tr>
<td><em>Hvordan</em></td>
<td>32</td>
<td>1.06 %</td>
</tr>
<tr>
<td><em>Hvorfor</em></td>
<td>5</td>
<td>0.17 %</td>
</tr>
<tr>
<td>Total</td>
<td>3025</td>
<td>100 %</td>
</tr>
</tbody>
</table>

*Table 3: Distribution of wh-words*

<table>
<thead>
<tr>
<th>Tense</th>
<th>My material</th>
<th>LBK in total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Non-past</td>
<td>2059</td>
<td>68.04 %</td>
</tr>
</tbody>
</table>

37
The numbers under “LBK in total” are the total numbers of words in the corpus tagged as present tense verbs and past tense verbs respectively. As is clear from the table, non-past is more common than past also in general, but the difference is less pronounced here than among the cleft questions in my material. Assuming the null hypothesis that the proportion of non-past cleft questions is the same as the proportion of verbs in non-past in general, and using `prop.test()` in R to test, reveals a very small p-value, \( p < 2.2 \times 10^{-16} \). In other words, the *vaere* ‘be’ in Norwegian cleft questions is significantly more likely to be in the non-past tense, than is a Norwegian verb chosen at random.

It is not necessarily the case that the increased preference for the non-past is a feature of cleft questions specifically. It may well be the case that questions in general are more likely to be in the non-past than declarative sentences are, or it may be the case that clefts in declaratives also favour the non-past, or both may be true. In any case, it is true that the *vaere* in Norwegian cleft questions is in the non-past tense twice as often as it is in the past tense, and furthermore that it occurs in the non-past tense more often than Norwegian verbs do in general.

As described in section 2.1, the cleft clause can be introduced by the complementizers *som* or *at*, or there can be no complementizer (Ø). Of these three options, *at* is by far the least common. Only one single question in my material contains a cleft clause introduced by *at*. By contrast, as many as 1257 of the cleft questions contain *som*, and the remaining 1768 questions have no complementizer. These numbers, along with their corresponding percentages, can be found in table 5.

<table>
<thead>
<tr>
<th>Complementizer</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Som</em></td>
<td>1257</td>
<td>41.54%</td>
</tr>
<tr>
<td><em>At</em></td>
<td>1</td>
<td>0.03%</td>
</tr>
<tr>
<td>Ø</td>
<td>1768</td>
<td>58.43%</td>
</tr>
<tr>
<td>Total</td>
<td>3026</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Table 5: Distribution of complementizers*
The single question that uses *at* as a complementizer is given in (45) below. In addition to being the only cleft question with a cleft clause introduced by the complementizer *at*, it is one of only 53 that has *hvor* ‘where’ as its wh-element.

(45) Hvor er det at en slik organisasjon går over til å bli en
where is it that a such organization goes over to to become a forretnings-struktur?
business-structure
‘Where is it that an organization like that goes over to becoming a business structure?’
(SA02ChNi01.1442)

It is not unexpected that *at* is uncommonly used as a complementizer to introduce the cleft clause. As discussed in section 2.1, *at* is the potential complementizer when the clefted constituent is a free adverbial. I have already established that cleft questions are rarely used to ask for adjuncts. Furthermore, it is often claimed in the literature that *at* may introduce the cleft clause in cleft sentences where the clefted constituent is a free adverbial, but that these sentences are most often without a complementizer (see e.g. NRG, p. 1090). Søfteland (2013), in her investigation of spoken language, also found that *at* was very rarely used.

The other possible complementizer, *som*, is, by contrast, rather common. The word *som* occurs in as many as 1257, or over 40 %, of the cleft questions in my material. However, it is not necessarily the case that all of these contain the *som* as a complementizer that introduces the cleft clause. *Som* has several meanings. In addition to being a complementizer that typically introduces relative clauses, it is also used for comparisons, with a meaning similar to English *like*, and in some idioms, like *som regel* and *som oftest*, both meaning ‘usually, typically’. (46) below is an example of this, a cleft question that contains *som*, but where *som* is not a complementizer and does not introduce the cleft clause.

(46) Hvor er det vi som regel finner Tom Stiansen?
where is it we as rule find Tom Stiansen
‘Where can one usually find Tom Stiansen?’
(SA11Re0623.22)

Just under 60 % of the cleft questions contain neither *som* nor *at*, making no complementizer the most common complementizer. Considering that some of the questions that are counted as containing *som* are likely to contain *som* as something other than a
complementizer, questions that lack an overt complementizer introducing the cleft clause probably make up an even larger majority.

The standard claim in the literature is that *som* is obligatory when the clefted constituent is the subject, and possible, though probably uncommon, when the clefted constituent is an object. I was able to find only two cleft questions in my material that both asked for an object and contained *som* as a complementizer. Out of the cleft questions that contain *som* as a complementizer, then, the overwhelming majority had the subject as the clefted constituent. The two examples that differ from the pattern are given in (47) and (48) below.

(47) Hva var det som sykepleier-en sa, så ut-tal-t?
what was it that nurse-DEF said so out-speak-PAST
‘What was it (that) the nurse said, so clearly’
(SA05FoBj01.797)

(48) Hva er det som hun ikke veit?
What is it that she not know.NPST
‘What is it that she doesn’t know?’
(SK01SmKi02.393)

Both (47) and (48) have a second available interpretation, where they are not cleft questions. Under this reading, *det* in both questions is a referential pronoun and the subordinate clause following it is a restrictive relative clause that modifies this pronoun. For these interpretations, English translations would look something like “What was that/the thing that the nurse had said, so clearly?” and “what is that/the thing that she doesn’t know?” Context is necessary to determine which interpretation should be chosen in each case. However, in these two cases, even upon examining the context it is not entirely clear which reading should be preferred. In spoken language the prosody would distinguish between them, but that option is not available for written data. However, choosing different readings of these questions does not alter the overall meaning of the text much, if at all, and so this ambiguity does not cause any problems for reading comprehension.

The existence of the two examples above makes it impossible to not agree with the literature that *som* is a possible complementizer when the object is clefted. However, it is worth noting that it appears to be very rare, and that neither of the two examples were unambiguously clefts. Furthermore, inserting *som* as a complementizer in cleft questions
asking for the object often produces results that are at least somewhat odd. (49a) is an example from my material where the clefted constituent is an object; inserting *som* here produces a sentence that is at best marginally acceptable, as shown in (49b).

(49) a. Hva er det da vi skal med en ny Hamsun-debatt?
    How is it PRT we shall with a new Hamsun-debate
    ‘What is it we need another Hamsun-debate for?’
    (AV02BT960419063.18)

b. ??Hva er det da som vi skal med en ny Hamsun-debatt?
    What is it PRT what we shall with a new Hamsun-debate
    ‘What is it that we need another Hamsun-debate for?’

That *som* very rarely introduces the cleft clause when the clefted constituent is an object is in accordance with Søfteland’s (2013) findings in her work on clefts in spoken Norwegian.

*Som* is typically claimed to be impossible as a complementizer when an adjunct, rather than an argument, is clefted. And indeed the only cleft question I find with a wh-element other than *hva* ‘what’ and *hvem* ‘who’ is the question with *hvor* ‘where’ given in (29), where as previously mentioned *som* is not a complementizer. My material thus contains no clefts questions where an adjunct is clefted and the cleft clause is introduced by *som*, which is in accordance with the claims in the literature.

All the parameters used to describe Norwegian cleft questions so far have been easily identifiable and countable for a computer. This is less so the case for syntactic function. For this reason, a random sample of 500 cleft questions was selected and manually analysed, to determine the syntactic function of the clefted constituent. The results of this analysis is summarized in table 6.

<table>
<thead>
<tr>
<th>Syntactic function</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>197</td>
<td>39.40%</td>
</tr>
<tr>
<td>Object</td>
<td>188</td>
<td>37.60%</td>
</tr>
<tr>
<td>Complement of a preposition</td>
<td>102</td>
<td>20.40%</td>
</tr>
<tr>
<td>Free adverbial</td>
<td>12</td>
<td>2.40%</td>
</tr>
<tr>
<td>Predicative</td>
<td>1</td>
<td>0.20%</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Table 6: Distribution of syntactic functions*
A $\chi^2$-test reveals that the numbers for the different functions are significantly different from each other, $p < 2.2 \times 10^{-16}$.

Subjects and objects appear to be more or less equally common as the clefted constituent, with complements of prepositions in a clear third place. As predicted from the distribution of the different wh-elements, free adverbials are rather uncommon. Predicatives are even more uncommon, which is not surprising, since they also often produce clunky sentences when clefted in declaratives (Lundeby 1967).

Of these 500 randomly selected cleft questions, all the questions where the subject was the clefted constituent contained *som* as a complementizer, and no others did. This supports the conclusion reached earlier, that *som* is obligatory when the subject is clefted, and either uncommon or impossible in all other cases.

To summarize this section, it is safe to conclude that clefts are relatively common in wh-questions in Norwegian. However, they are by far more common in questions with *hva* ‘what’ and *hvem* ‘who’ as wh-elements than in other questions. Clefts are used more often when the constituent that is being asked for is an argument, than when it is an adjunct. About two thirds of cleft questions are in the non-past tense, making the *vere* in clefts more likely to be in the non-past tense than is the case for Norwegian verbs in general. It is possible to construct acceptable examples of cleft questions that use complex tenses, but such questions are very rarely used. Cleft questions are almost always in one of the two simple tenses in Norwegian, either past or non-past. When a cleft question is used to ask for the subject, the cleft clause is introduced by *som*, otherwise the cleft clause is typically without a complementizer, though *at* is possible for adjuncts and *som* is possible when the object is clefted.

### 4.2 Clefts in information seeking questions

Information-seeking questions, or standard questions, are questions that are uttered with the prototypical purpose associated with questions, that of seeking information. This section describes the basic pattern of clefts in these questions; when they are used, when they’re not, and when they’re optional.

Lie (1978) writes that cleft question and non-cleft questions have traditionally been seen as interchangeable, and only stylistically different from each other. That they have ever been viewed as such suggests that there must be at least some degree of optionality to clefts in
information-seeking questions. And indeed, information-seeking non-cleft questions like (50a) and (51a) could be replaced by the cleft questions in (50b) and (51b) without giving rise to any noticeable change in meaning.

(50) a. Hva er da så ekstra galt med rydding av regn-skog?
   What is PRT so extra wrong with clearing of rain-forest
   ‘What’s so extra wrong about clearing rainforest?’

   (AV02BT951211010)

b. Hva er det da som er så ekstra galt med rydding av regn-skog?
   What is it PRT that is so extra wrong with clearing of rain-forest
   ‘What is it that’s so extra wrong about clearing rainforest?’

(51) a. Hvem hadde sladret?
   Who had gossiped
   ‘Who had told?’

   (AV02BT960530123)

b. Hvem var det som hadde sladret?
   Who was it that had gossiped
   ‘Who was it that had told?’

Clearly, then, information seeking questions can be both clefts and non-clefts, with a degree of optionality. This optionality is not complete, however. Since Lie (1978) there is a longstanding claim in the literature that clefts are obligatory in wh-questions in Norwegian in certain contexts. The most cited example, e.g. in Lie (1978) and Søfteland (2013), is given in (52) below.

(52) (A group of students in a classroom are bothered by a loud noise)
   a. ??Hva bråk-er?
      What make.noise-NPST
      ‘What’s making noise?’

   b. Hva er det som bråk-er?
      What is it that make.noise-NPST
      ‘What is it that’s making the noise?’

In (52) the noise is directly observable and highly salient, causing the existence of a noise source to be obvious, and in Lie’s (1978) opinion, precisely this is the deciding factor in
making the cleft obligatory. His claim is that this existence is presupposed in (52b), but not in (52a), and he reasons as follows about this example:

In spoken Norwegian [(52a)] is almost unacceptable. When I hear some noise, I know that there must be “something” making the noise, and therefore I choose the sentence which presupposes so, namely [(52b)]. (Lie 1978, p. 395)

Another example with similar properties is (53) below, where again the non-cleft version is close to impossible. Like the noise in (51), the phone call as well is directly observable and highly salient. Just as it was impossible in (52) that nothing was making the noise, it is impossible in (53) that no one called.

(53) (The phone rings. One member of the household answers and talks on the phone for a while before hanging up. Another member of the household asks the question.)

a. ??Hvem ring-te?
   Who ring-PAST
   ‘Who called?’

b. Hvem var det som ring-te?
   Who was it that ring-PAST
   ‘Who was it that called? / Who was that on the phone?’

Clearly, then, cLEFTs are optional in some information-seeking questions, and obligatory, or at least close to it, in others. The question, then, is whether optionality or obligatoriness is the dominant pattern, and whether there are also contexts where cleft questions are impossible.

Working only with context-free constructed examples, it can easily look like the dominant pattern is that cleft and non-cleft questions are freely interchangeable, with exceptions like (52) and (53) only in very restricted contexts. Examining cleft questions in context, however, it becomes clear that the degree of optionality is not as large as one could otherwise believe. For many of the cleft questions in my material, a transformation into a non-cleft question would not have been strictly impossible, but would have resulted in at least a little oddness in context. For the cleft questions in (54a) and (55a), the resulting oddness when the cleft is removed is strong enough to more or less rule out the non-cleft version as an option. It is not the case, then, that the dominant pattern is for it to be possible to replace a cleft question with a non-cleft question in context.
(54) (A therapist is conducting a think-the-worst interview with a student with exam anxiety)
   a. Hva er det du frykt-er skal skje til eksamen?
      What is it you fear-NPST shall happen to exam
      ‘What is it you fear will happen at your exam?’
      (SA02GrRo01.542)
   b.??Hva frykter du skal skje til eksamen?
      What fear-NPST you shall happen to exam
      ‘What do you fear will happen at your exam?’

(55) (Ingrid Betancourt is given a “compliment” by one of her captors. She replies that she certainly doesn’t have Stockholm syndrome. When she sees the look he gives her in return, she immediately realizes that what she has said had sealed her own fate. She wonders what caused the reaction.)
   a. Hva var det han mis-lik-te?
      What was it he dis-like-PAST
      ‘What was it he didn’t like?’
      (SA03BeIn01.5600)
   b.??Hva mis-lik-te han?
      What dis-like-PAST he
      ‘What didn’t he like?’

These two questions are similar to the questions in (52) and (53) in that in all four questions, it is clear that there is an existing answer. In (54) the interview wouldn’t be happening if there wasn’t anything the addressee feared, and in (55) the question is prompted by the person referred to by “he” reacting negatively to something.

While this section started with non-cleft questions that could be cleft questions, neither is it the case that non-cleft questions could in general just as easily have been cleft questions. In (56) below, for example, the cleft version is practically impossible.

(56)  a. Kjennels-en om løslatels-en av Augusto Pinochet av helse-messig-e
      verdict-DEF about release-DEF of Augusto Pinochet of health-related-PL
      årsak-er ripp-er opp i gaml-e sår som aldri har grodd, men
      cause-PL.rip-NPST up in old-PL wound.PL that never have healed but
      vil neppe spille noen rolle den avgjørende valg-rund-en søndag
will hardly play any role the deciding election-round-DEF Sunday
med mindre spørsmål-et blir reist: Hva skje-r når Pinochet
with less question-DEF become risen what happen-NPST when Pinochet
kommer tilbake til Chile?
come back to Chile
‘The verdict to release Augusto Pinochet for health reasons rips up old wounds that
have never healed, but it will probably not be important for the deciding election
round this Sunday, unless the question is asked: What happens when Pinochet returns
to Chile?’

(AV01KK00011317.3)
b. ??(...) med mindre spørsmål-et blir reist: Hva er det som
(...) with less question-DEF become risen what is it that
skje-r når Pinochet komm-er tilbake til Chile
happen-NPST when Pinochet come-NPST back to Chile
‘(...) unless the question is asked: What is it that happens when Pinochet returns to
Chile?’

In contrast to the cases where the cleft was more or less obligatory, there is nothing in this
example to indicate that “nothing” would not be a perfectly good and plausible answer to the
question. Indeed, that nothing will happen can even be said to be among the more salient
alternatives.

Lie (1978) also addresses another context where cleft questions would be infelicitous,
namely when the speaker is not interested in a complete or exhaustive answer, in other words
when they wish to ask a mention-some question rather than a mention-all question.
Considering the exhaustivity property of clefts in declaratives, this restriction is not
surprising. He gives an example in support of that claim that is repeated here as (57) in a
slightly adapted form.

(57) (The speaker is driving into a new city for the first time, and stops to ask a local for
help)
a. Hvor kan jeg parkere?
   Where can I park
   ‘Where can I park?’
b. ??Hvor er det jeg kan parkere?
Where is it I can park?
‘Where is it I can park?’

Lie’s claim is that (41b) would be odd here, precisely because that would demand an answer that includes all the possible parking spaces in the city, and the speaker would presumably not be interested in that kind of answer in this kind of context. The same effect is seen in (58) below, where again the cleft question is odd, as the speaker is presumably not interested in a list of all possible places to practice the piano, but would be satisfied with one or two.

(58) a. Hvor kan jeg øve piano?
   Where can I practice piano?
   ‘Where can I practice the piano?’
   (SK01BjKe02.3237)

   b. ?? Hvor er det jeg kan øve piano?
   Where is it I can practice piano
   ‘Where is it I can practice the piano?’

To summarize this section, it is clearly not the case that cleft questions and non-cleft questions are in free variation. To the contrary, it appears that contexts frequently come with a preference for either a cleft or a non-cleft question. This again is evidence that the meaning of cleft questions differs from the meaning of non-cleft questions. If they meant exactly the same, there would be no reason for one perfectly grammatical question to be preferred over another, or for replacing one kind of question with the other to result in this kind of oddness. One aspect of that meaning difference, is likely to have to do with existence, as that seems to be a deciding factor in whether the cleft version of a question is preferred, optional or impossible. Another is likely related to exhaustivity, as cleft questions cannot be mention-some questions. Both existence and exhaustivity are part of the meaning of clefts in declaratives, so it is interesting, but no surprising, that these are features that take part in governing when cleft questions are and are not used.

4.3 Clefts in special questions

“Special questions” is a common term for questions that are used for some other purpose instead of or in addition to requesting information. This section describes the distribution of clefts in five different kinds of special questions.
4.3.1 Surprise-disapproval questions

Obenauer (2004) and Bayer and Obenauer (2011) use Surprise-disapproval questions (SDQs) to mean questions that are uttered to convey that the speaker is surprised by and disapproves of (some aspect of) the current state of events. These are not questions the speaker asks in search of an answer, the speaker is already very aware of the answer, and uttering the question to convey their surprise and disapproval.

Obenauer (2004) shows that in the Italian dialect Pagotto (Bellunese) SDQs are syntactically distinguished from standard questions. In German, which is of course closely related to Norwegian, Bayer and Obenauer (2011) argue that the discourse particle denn should be considered obligatory in SDQs. It would not be surprising, then, if SDQs in Norwegian also displayed some formal feature that distinguishes them from standard information seeking questions. As discourse particles are frequent in Norwegian, like they are in German, it would perhaps be natural to expect that also Norwegian marks SDQs with a discourse particle. This is not the case, however.

The prototypical example of an SDQ in Norwegian is (59). The equivalent SDQ in German is given in (60) (taken from Bayer and Obenauer’s (43)). Both are certainly SDQs and not standard questions. If the speaker actually wants anything answered when uttering them, it is something along the lines of what happened to you?, and not a description of the addressee’s appearance. It is clear from these examples that unlike German, Norwegian does not make use of a discourse particle to mark the question as an SDQ. Instead, the Norwegian SDQ contains a cleft, which is absent from the German example.

(59) Hvordan er det du ser ut?!
   How is it you see out
   ‘You look terrible/weird!’ Literally: ‘How is it you look!?’

(60) Wie siehst du denn aus?!
   How see you PRT out
   ‘You look extremely/unacceptably strange/weird/…’

Bayer and Obenauer (2011, p. 468) say about the particle in the German example “The use of denn seems to support the SDQ interpretation. Leaving out the particle (…) preferentially leads to straight information seeking questions.” The same is true for the cleft in the Norwegian example. Leaving it out would of course result in a perfectly grammatical...
question, but this question would be difficult to interpret as an SDQ. The hashtag in front of (61) is meant to indicate that it is unacceptable with the intended SDQ-reading, indicated by the “?!”. As an information-seeking question it is perfectly acceptable.

(61)  #Hvordan ser du ut?!

  ‘What do you look like?’

My corpus material contains several examples of SDQs, among them are (62a) and (63a). In (62a) it is clear from the context that the speaker is not at all interested in a description of the addressee’s parenting style, rather, they are expressing their disapproval of how ungrateful the children acted when given presents. (63a) is uttered in shock over a coworker’s behaviour, and followed by a warning that they might lose their job. In other words, both of these are very clearly SDQs.

(62)  a. Hvordan er det egentlig du oppdrar barn-a!?

      How is it really you raise child-PL.DEF

      ‘You’re not raising your children very well!’

      (SA00EiSt01.392)

   b. #Hvordan oppdrar du egentlig barn-a!?

      How raise you really child-PL.DEF

      Intended: ‘You’re not raising your children very well!’

(63)  a. Hva er det du hold-er på med-!? 

      What is it you hold-NPST on with

      ‘What are you doing?!’

      (SA02BrMa01.5271)

   b. ??Hva hold-er du på med-!? 

      What hold-NPST you on with

      ‘What are you doing?!’

(62) and (63) have in common with (59) that it is the cleft versions that give rise to the SDQ interpretations. The non-cleft questions in (62b) and (63b) can certainly convey disapproval, but they don’t have to, and they can’t be used to convey the same degree of surprise and urgency as the cleft questions can. That is not to say that the cleft questions can never be used as standard information-seeking questions. It is possible to imagine contexts where both (62a)
and (63a) can be used as standard questions. But the cleft facilitates the reading as an SDQ and it is difficult to interpret a question as an SDQ if it does not contain a cleft.

In Norwegian, then, clefts appear to have much of the same function in SDQs as the discourse particle denn does in German. The cleft is not truly optional in these questions, even though leaving it out does not make the question as such ungrammatical. If the questions are to receive the intended SDQ interpretation, it must be present, like Bayer and Obenauer argue is the case for the discourse particle denn in German.

4.3.2 Rhetorical questions

For the purposes of this thesis I will make use of a definition of rhetorical questions that is much narrower than simply a question the addressee is not meant to answer, which is how the term is typically used in everyday speech. Obenauer (2004, p. 6) defines rhetorical questions (RQs) in the following way, and this is the definition I will adopt here:

The term ‘rhetorical question’ (RQ) is understood here as referring to those questions whose interpretation is taken to convey, rather than a request for the value(s) of a variable, the assertion that no corresponding value exists (more precisely, an assertion of opposite polarity; cf., for example, Quirk et al. 1985).

This definition excludes those questions that are often referred to as rhetorical questions both in everyday speech and in parts of the literature (e.g. Delfitto and Fiorin 2014), that do not convey that no value for the variable exists, but rather that it is obvious.

Like SDQs, RQs may also be formally distinguished from standard questions. Bellunese distinguishes RQs as well as SDQs syntactically (Obenauer 2004), and Bayer and Obenauer (2011) argue that German makes use of a discourse particle for RQs like they do for SDQs, in this case the particle schon. For SDQs I found that Norwegian uses clefts where German uses a discourse particle. For RQs, however, Norwegian, like German, makes use of a discourse particle to mark RQs, to the extent that RQs are formally marked at all. (62) is an example of an RQ in Norwegian.

(64) Hva er vel mer sommer-lig enn en saft-ig skive rosa vann-melon
    ‘What says summer more than a juicy slice of pink watermelon?’
    (SA01ArGu01.1583)
The question as it is written in (64), with the particle *vel*, can only be interpreted as a rhetorical question. The presence of *vel* makes it very difficult, if not impossible, to interpret this as a standard question. (64) must be interpreted as an RQ, i.e. as asserting that there is no *x* such that *x* says summer more than a pink slice of juicy watermelon does, that such a slice of juicy watermelon is the most summer-like thing there is.

(64) would of course be a grammatical question also without including the particle. Moreover, it would not be impossible (though arguably more difficult) to interpret the question as an RQ even with *vel* absent. It seems that we in a sense find the opposite pattern with *vel* in RQs as we did with clefts in SDQs: An SDQ must contain a cleft, but a cleft question is not necessarily an SDQ, while an RQ must not necessarily contain *vel*, but a wh-question with *vel* is necessarily an RQ.

Turning now to clefts in RQs, I searched my material for instances of *vel*, as an efficient way to find potential clear-cut examples of RQs. This search yielded one single result, given below as (65).

(65)  Hva er det vel du har gjort?
What is it PRT you have done
Literally: ‘What is it well you have done?’
(SK01AnOl03)

This example stems from a novel called *Oslo ved midnatt* published in 1987. The question in (65) is what a patient who admires the nurse who is treating him imagines that she would say to him. Given what was just said about *vel* in wh-questions, one would expect (65) to be a straightforward rhetorical question. However, it is an extremely odd question and its meaning is difficult or impossible to determine. In context, the only possibility that makes sense is that (65) is something like an SDQ with a rather idiosyncratic choice of discourse particle. It certainly is not a rhetorical question.

Apart from this one very puzzling example, there are no questions that contain *vel* as a discourse particle in my material. This fact alone suggests that RQs and cleft questions do not very easily mix. When the one example that does contain *vel* cannot be straightforwardly interpreted as an RQ, even though the presence of *vel* normally forces this interpretation, this might be explained if the presence of the cleft simultaneously rules out the possibility of an RQ-interpretation.
This hypothesis is supported by what happens when clefts are inserted into RQs or cleft questions are attempted to be made into RQs by adding vel. (66) is an example of the former.

(66) a. Hva gjør vel det når musikal-en går for full-e hus?
    What does PRT that when musical-DEF goes for full-PL house.PL
    ‘What does that matter, when the musical is drawing full houses?’
    (AV02BT95032302.15)

    b. ??Hva er det vel det gjør når musikal-en går for full-e hus?
    What is it PRT that does when musical-DEF goes for full-PL house.PL

As an RQ, (66a) must be interpreted to be a statement to the effect that some problem does not matter, since the musical is doing very well. (66b) on the other hand, gives much the same effect as (65) in that it sounds odd and unnatural, and is difficult to assign an interpretation to.

(67) is an example of the opposite, trying to force an RQ-interpretation on a cleft question. (67a) is an information-seeking question from my material. (67b) is the result when trying to force it to receive in RQ-interpretation by adding vel, the intended interpretation being for it to be equivalent to a statement that nothing is happening. This too results in a very odd question, the meaning of which is unclear.

(67) a. Hva er det som foregår-r?
    What is it that happen-NPST
    ‘What’s going on?’
    (SK01AnLa01.5588)

    b. ??Hva er det vel som foregår-r?
    What is it PRT that happen-NPST

The poor results when attempting to combine vel with cleft questions alone, suggest that non-cleft questions are preferred as RQs. This hypothesis is strengthened by the fact that I have not found any RQs among the positively polar cleft-questions in my material.

For RQs that contain negation, the picture appears to be a little different. (68) is an example from my material. From context it is clear that its intended meaning is to communicate that the speaker bribes everyone worth bribing, that there is no one that she doesn’t bribe.

(68) Hvem er det ikke jeg betal-er bestikkels-er til?
    Who is it not I pay-NPST bribe-PL to?
‘Who is it I don’t pay bribes?’
(SA02PoAn01.2196)

In other words, (68) appears to be an RQ even though it is a cleft question. However, that a question is used to communicate that no value exists, does not necessarily mean that it is, strictly speaking, an RQ. As discussed in section 5.4.3, CFVQs also sometimes cause such implications. Since (68) contains neither vel nor any of the expressions used to identify CFVQs (see section 4.3.3), it is difficult to definitively assign the question to one category, though the RQ interpretation appears more likely.

My material does not contain any negatively polar cleft questions with vel. However, this fact is a direct result of the search criteria, and does not say anything about the frequency of such questions. Searching specifically for such questions in LBK, however, yields only one single result, given below as (69). It is not the case, then, that vel occurs noticeably more often in negatively polar cleft questions than in positively polar ones. However, (69) does not produce the same kind of oddness as (65), and it is straightforward to interpret it as an RQ.

(69) Hvem er det vel ikke som har sitt-et med barne-mat-skål-a og lek-t fly med skje-en for å få junior til å spise opp middag-en sin
‘Who isn’t it that has sat there with the bowl of children’s food and played airplane with the spoon in order to get junior to finish his dinner?’

Since (69) is a perfectly interpretable rhetorical question, it is clear that clefts are not as impossible in negatively polar RQs (RQ-s) as in positively polar RQs (RQ+s), though they are uncommon also here.

One feature of both (68) and (69) that is worth noting, is that in both questions, the negation is found in the superordinate clause rather than in the cleft clause. This is especially noteworthy, as the negation in cleft questions typically occur within the cleft clause.
4.3.3 Can’t-find-the-value-of-x questions

Can’t-find-the-value-of-x questions (CFVQs) is the name used by Obenauer (2004) and Bayer and Obenauer (2011) for a specific kind of special questions. A question of this kind, in addition to asking for the value of a variable, indicates that the speaker has been trying for some time to identify this value without success, and has considered and discarded several possibilities. The prototypical example is that the speaker has misplaced something, perhaps their glasses as in the German example in (70) (Bayer and Obenauer’s (3)), and is now unable to find them.

(70) Wo liegt nur /bloß meine Brille?

where lies PRT my glasses

‘Where on earth did I put my glasses? (I have already looked everywhere.)’

Bayer and Obenauer (2011) argue that the German discourse particles nur and bloß mark questions of this kind. Both particles have literal meanings similar to English only, and Bayer and Obenauer explain their meaning contribution to CFVQs as expressing negation of the alternatives the speaker has been able to evaluate, similar to how only expresses negation of focus alternatives. According to Obenauer (2004) these questions are, like RQs and SDQs syntactically different from standard questions in Bellunese. It would not be surprising, then, if these questions are formally different from standard questions also in Norwegian.

Obenauer (2004) uses e.g. diable ‘devil’ as a diagnostic for CFVQs in French, and on earth and the hell in English. Norwegian has several idiomatic phrases that can serve as similar diagnostics, most of them start with the preposition i ‘in’, e.g. i all verden ‘in all (the) world’, I alle dager ‘in all days’, i himmelens navn ‘in heaven’s name’, etc. An example of such a question is given in (71) below.

(71) Hvem i all verden hadde fortalt ham alt dette?

Who in all world had told him all this

‘Who on earth had told him all of this?’

(SK01CaFi01.802)

While the German discourse particles indicate negation of the evaluated alternatives, these expressions all indicate an expansion of the “search area”, so to speak, as the speaker has been unable to find an answer within the domain in which one would expect the answer to be
located. A corpus search for hva, hvem, hvordan, or hvorfor followed by i is thus an efficient way of finding CFVQs. The results of this search, with regards to clefts and the distribution between the different wh-words is given in table 7.

<table>
<thead>
<tr>
<th></th>
<th>In total</th>
<th>Clefted</th>
<th>Percent clefted</th>
</tr>
</thead>
<tbody>
<tr>
<td>hva</td>
<td>394</td>
<td>73</td>
<td>18.53 %</td>
</tr>
<tr>
<td>hvem</td>
<td>70</td>
<td>5</td>
<td>7.14 %</td>
</tr>
<tr>
<td>hvordan</td>
<td>126</td>
<td>1</td>
<td>0.79 %</td>
</tr>
<tr>
<td>hvorfor</td>
<td>222</td>
<td>1</td>
<td>0.45 %</td>
</tr>
<tr>
<td>Total</td>
<td>812</td>
<td>80</td>
<td>9.85 %</td>
</tr>
</tbody>
</table>

Table 7: Distribution of clefts in CFVQs with different wh-words

As is clear from the table, a total of 9.58 % of these CFVQs were cleft questions. That number is somewhat lower than the 16 % of matrix wh-questions that were cleft questions in Søfteland’s material. This could be taken to imply that CFVQs are somewhat less likely to be cleft questions, but the difference could also be due to the difference between a written corpus as opposed to a spoken one, or also to the fact that a large proportion of the CFVQs were how- and why-questions, and those questions are rarely cleft questions.

What can be said for certain, is that, similarly to information-seeking questions, CFVQs can be both cleft and non-cleft questions. They are in general non-clefts more often than they are clefts, and questions with hva ‘what’ and hvem ‘who’ are more likely to be cleft questions than questions with hvordan ‘how’ and hvorfor ‘why’.

### 4.3.4 Quiz and exam questions

As suggested by the name, quiz and exam questions are questions of the kind that is used in quizzes, tests and exams. These questions are special in the sense that the speaker’s (or the person who made the test’s) goal is not to receive information that answers the question. They already know the answer, what they want is to find out whether or not the addressee knows the answer to the question.

My material contains several questions that are clearly exam or test questions. (72) below is one example, this comes from end of chapter-questions in a science textbook.
What was it that did that problem-DEF with sour precipitation became reduced?
‘What was the reason for the reduction of the problem with acid rain?’

(72) is a cleft question, but this is by no means the only form exam questions can take. Some of them are strictly speaking not questions at all, but rather imperatives, and some ask explicitly for the student’s knowledge. The same end of chapter-questions that contain (72) also contain examples of both of these ways to phrase test questions. (73) is an imperative and (74) asks directly for the student’s knowledge.

(73) Nevn to miljø-konferanser og hva de arbeid-er med.
Mention two environment-conferences and what they work-NPST with
‘Mention two environmental conferences and what they work with.’

(74) Kjenn-er du til noe i norsk natur som treng-er know-NPST you to something in Norwegian nature som need-NPST vern?
protection
‘Do you know of anything in the Norwegian nature that needs protection?’

A student who knows, for example, of a specific animal in need of protection, could truthfully answer (74) simply with yes, but would probably not receive any points for this answer. The question in the way it is phrased in (74) is what the teacher actually wants to know, yet it is not the question they want the student to answer.

Even when considering only the test questions that are formally questions, and don’t ask explicitly for the student’s knowledge, there is variation. (72) is a cleft question, but non-cleft questions are certainly also possible as test questions. (75) is a non-cleft example from the same science textbook.
(75) Hva er forskjell-en på en hypotese og en teori?
    ‘What’s the difference between a hypothesis and a theory?’
    (SA01HaBo01.234)

Clearly, quiz and exam questions allow for both cleft and non-cleft questions, with an
optionality at least equal to that of information-seeking questions.

4.3.5 Again-questions

Sauerland (2009) points out that German wieder ‘again’ has a puzzling use in questions like
(76) below (his (1)).

(76) Wie war wieder ihr Name?
    ‘What was your name again?’

These are the questions that will be called again-questions in this thesis. They are questions
that in addition to seeking an answer to the question as it would be without wieder, also
communicate that the speaker feels like that answer is knowledge they should already have or
used to have but have forgotten. (76) is asking for the addressee’s name, but would be an odd
question to direct to someone one meets for the first time. In Sauerland’s words “the use of
wieder (…) seems to indicate prior knowledge of the answer to the question” (Sauerland

These questions are not unique to German or wieder. We find very similar questions in
English, using again, as in (77). questions also exist in Norwegian, and typically look
something like (78).

(77) What was your name again?

(78) Hva var det hun het igjen?
    ‘What was her name again?’
    (SK04ElOy01.204)
These questions are particularly interesting because they have a reading that is entirely
absent from their corresponding declaratives. Sauerland writes about his German example,
repeated here as (79) (his (2)), that it has two interpretations. Either he used to be called Uli,
then changed his name and has now changed it back, or someone earlier in a salient sequence
also had that name.\(^3\) The questions with *again*, however, imply nothing about neither name
changes nor other people with the same name.

(79) Mein Name ist wieder Uli
My name is again Uli
‘My name is Uli again.’

Sauerland’s analysis is that the iterative adverb takes higher scope in the questions than in the
declaratives, indicating a return to a previous state of knowledge. Combining this with
Truckenbrodt’s (2000) analysis of questions, an *again*-question like (78) can be
conceptualised as meaning something like (80).

(80) I want that we again know together [what her name was]

As shown in (78), Norwegian can use *igjen* ‘again’ to create such questions, like German
and English. However (78), unlike the German example in (76) and the English example in
(77), is also a cleft question. Norwegian frequently makes use of clefts in this kind of
questions, and so do the closely related languages Swedish and Danish. SAG and GDS both
mention that clefts in questions can be used to indicate that the asker feels that they have or
should have the knowledge they ask for. GDS points out that these questions are typically in
the past tense, claiming this refers to the point in time where the asker had or should have had
the relevant knowledge.

It is true also for my Norwegian material that *again*-questions typically use past tense clefts.
It is worth pointing out here that also the non-cleft German and English examples are in past
tense. It may well be the case that the choice of past tense in these questions are in some way

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\(^3\) For Norwegian, only the former option is possible. A sentence like (I) can only mean that the speaker used to
be called Anne, changed their name, and has now changed it back, not that someone earlier in a salient sequence
were also called Anne.

(I) Jeg het-er Anne igjen.
I be.named-NPST Anne again
‘My name is Anne again.’
related to their meaning. However, my material also contains again-questions that are in the non-past tense. In addition to questions like (78), I also find (fewer) questions like (81).

(81) Hva er det hun heter igjen?
   What is it she be.named-NPST again
   ‘What is her name again?’
   (SK01RiEl01.5797)

There is no immediately obvious difference in meaning between (78) and (81). The non-past would be unacceptable if the person whose name is asked is deceased, but excepting that, both versions are possible in the same contexts.

That does not mean, however, that (78) and (81) are equivalent in every way. Interestingly, removing igjen ‘again’ from (78) leaves us with a question that, somewhat depending on intonation, is likely to retain the feeling that it is asking for something that was once known. Removing igjen from (81), however, produces a question that is more likely to be a plain information-seeking question. In other words, Norwegian past tense cleft questions can be again-questions even in the absence of an adverb meaning ‘again’.

While again-questions often contain clefts in Norwegian, it is not the case that they must. (82) is also taken from LBK, perfectly grammatical, and has the same again-question meaning.

(82) Hva heter han nå igjen?
   What be.named-NPST he PRT again
   ‘What’s his name again?’
   (SK01AwTa01.2010)

Even so, it is clearly the case that clefts are not irrelevant here. Of the 29 again-questions in LBK with the verb hette ‘be named’ that contain igjen ‘again’, 17 were cleft questions, and 13 were past tense cleft questions. Only 9 were neither cleft questions nor in the past tense. The entire distribution with regards to clefts and tense is given in table 8.

<table>
<thead>
<tr>
<th></th>
<th>Past tense</th>
<th>Non-past tense</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleft question</td>
<td>13</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Non-cleft question</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>
The question in (82) also exemplifies something else worth noting, which is the presence of the discourse particle *nå* in these questions. While discourse particles in general are common in Norwegian, *nå*, literally ‘now’, is easily seen as archaic and not all that common outside of these questions (Svennevig 2014). Of the 29 again-questions from LBK, 5 contained this discourse particle.

As mentioned, past-tense again-questions with clefts are less dependent on the actual presence of *igjen* to obtain the again-question reading than otherwise identical questions in the non-past tense. To a certain extent this is also true for again-questions that do not contain clefts. (83a) can maybe have an again-question reading, but such a reading is not available for (83b).

(83)  

a. *?Hva het du?*  

What *be.named.PAST* you?  

‘What was your name?’

b. *#Hva het-er du?*  

What *be.named-NPST* you?  

‘What is your name?’

While it might be possible to use (83a) as an again-question, it is certainly possible to use past tense cleft-questions as again-questions, even without again. (83) is an example from my material.

(83)  

*Hva var det den het?*  

What *it it be.named.PAST*  

‘What was it it was called?’

(SK01AxSu02.3335)

It seems then, that Norwegian again-questions must have at least one of past tense, cleft and *igjen*. Very often all three are present at once, and most again-questions have at least two of the three. Cleft questions, and in particular past tense cleft questions, are more easily again-questions without the presence of *igjen* ‘again’ than non-cleft questions are.
The distribution of cleft questions in the different kinds of questions I have examined is summarized in table 9. It is evident from the table that the use of cleft questions is not uniform across question types, but rather that the question type can be considered to be among the deciding factors for whether or not a question should contain a cleft.

<table>
<thead>
<tr>
<th>Question type</th>
<th>Cleft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard (Information-seeking)</td>
<td>Optional, obligatory in some contexts, impossible in some contexts</td>
</tr>
<tr>
<td>Surprise-disapproval</td>
<td>Obligatory</td>
</tr>
<tr>
<td>Rhetorical</td>
<td>Impossible in positively polar RQs, rare in negatively polar RQs</td>
</tr>
<tr>
<td>Can’t-find-the-value-of-x</td>
<td>Optional, depending on context</td>
</tr>
<tr>
<td>Quiz and exam</td>
<td>Optional, depending on context</td>
</tr>
<tr>
<td>Again</td>
<td>Strongly preferred without <em>igjen</em></td>
</tr>
<tr>
<td></td>
<td>Preferred with <em>igjen</em></td>
</tr>
</tbody>
</table>

Table 9: Clefts in different kinds of wh-questions

SDQs and again-questions have in common that the speaker already knows that there is an answer. They are also the two kinds of questions with the strongest preference for cleft questions. For SDQs, their knowledge of the answer is precisely why the speaker utters the question, as they wish to convey their negative surprise by it. For again-questions, the speaker simply knows that they used to know or should know the answer. In both cases, the speaker feels certain that there is a specific value that can be assigned to the variable that is being asked for. This stands in sharp contrast to the case for positively polar rhetorical questions. The point the speaker wishes to convey by uttering them is precisely that no such value exists. This question type is also the only one where clefts are generally impossible.

Taken together with the fact that the contexts where clefts appear to be obligatory in information-seeking questions are the contexts where the speaker assumes the truth of the so-called existential presupposition of questions can be taken for granted, this pattern suggests a relation between cleft questions and presupposed existence. This relation is explored further in the next chapter, which offers an analysis that explains the differences in meaning between cleft and non-cleft questions, and thus also their different distributions in special questions.
5 Analysis

5.1 The framework

The analysis proposed in this chapter takes the Groenendijk and Stokhof (1984) approach to questions as its starting point (but something very similar should be possible following the Hamblin (1973) approach). As described in section 2.3 this approach takes the denotation of a question to be a partition of the set of all possible worlds. Since a proposition can be conceptualized as a set of possible worlds, and vice versa, this is equivalent to saying that a question denotes a set of propositions. More specifically, for a question with *hvem* ‘who’, this is the set defined in three different but equivalent ways in (84). For questions with other question words, the set whose power set it is that x is a member of change accordingly.

\[(84) \text{Hvem } P? = \{P(x) : x \in \mathcal{P}(D_e \cap \{relevant \ people\})\}\]

\[= \{P(x) : x \subseteq D_e \cap \{relevant \ people\}\}\]

\[= \{P(x) : x \subseteq D_e \cap \{relevant \ people\} \lor x = \emptyset\}\]

To see that this is equivalent to Groenendijk and Stokhof’s partition of the set of possible worlds, consider a question with a limited and clearly delineated set of alternatives. The question in (85) is such a question, outlining three different individuals as possible answers.

\[(85) \text{Hvem kjenn-er du, Anne, Linda eller Petter?}\]

Who know-NPST you, Anne, Linda or Petter?

‘Who do you know, Anne, Linda or Petter?’

The question in (85) partitions the set of possible worlds into cells as indicated by figure 2.

<table>
<thead>
<tr>
<th>You don’t know any of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>The one you know is Anne</td>
</tr>
<tr>
<td>The one you know is Linda</td>
</tr>
<tr>
<td>The one you know is Petter</td>
</tr>
<tr>
<td>The ones you know are Anne and Linda</td>
</tr>
<tr>
<td>The ones you know are Anne and Petter</td>
</tr>
<tr>
<td>The ones you know are Linda and Petter</td>
</tr>
<tr>
<td>You know all of them</td>
</tr>
</tbody>
</table>

*Figure 2: The partition denoted by (84)*
In the case of (85) the intersection of $D_e$ and the set of relevant persons is the set \{Anne, Linda, Petter\}. The power set of this set, $\mathcal{P}(\{Anne, Linda, Petter\})$, is another set, this time with other sets as elements: $\emptyset$, \{Anne\}, \{Linda\}, \{Petter\}, \{Anne, Linda\}, \{Anne, Petter\}, \{Linda, Petter\}, \{Anne, Linda, Petter\}. Comparing this set to the partition depicted by figure 2 should make it clear that the first set formulation in (84) is equivalent to the set of cells in the partition.\(^4\)

The power set of a set with n elements has $2^n$ elements. A question that has n “possible answers” in the Hamblin (1973) sense of that phrase, thus partitions the set of possible worlds into $2^n$ cells, or equivalently, it denotes a set consisting of $2^n$ propositions.

By “the set of possible worlds”, what is meant is not the set of all imaginable and unimaginable possible worlds, but rather the set of possible worlds that are compatible with the propositions that are already in the common ground (Stalnaker 1978), or in other words, the set of worlds which as far as the interlocutors know might be the real world. That it is this set, and not the set of all possible worlds that is partitioned can be seen from figure 2, as this partition leaves no room for worlds in which, for example, the addressee does not exist. This set of possible worlds that can potentially be the real one is called the context set (Roberts 2004).

The equality between the first and second line of the equation in (84) should be obvious, since the power set of a set is defined simply as the set consisting of all its subsets, including the set itself and the empty set. Being a member of a power set of some set is thus the same as being a (not necessarily proper) subset of this set.

The equality between the second and third line of the equation is less obvious. The notation $\subseteq$ stands for the mereological relation “part of”. This relation is not a part of traditional mathematical set theory, and indeed set theory does not contain any notion of “part” at all. However, Lewis (1991) shows that the mereological parts of a set or class are its non-empty subsets or subclasses. Requiring of x that it is a subset of a specific set is thus the same as requiring that it is either a part of this set, or otherwise that it is the empty set. Therefore, the

---

\(^4\) This, of course, requires that a set of elements of a certain semantic type can fill the same “hole” in a proposition as an individual element of that semantic type. This is not problematic. One possible solution is simply that a set it interpreted as the mereological fusion of all its elements.
equality between the second and third line of the equation in (84) does indeed hold, and this is also a possible way to define the set of propositions denoted by the question.

Keeping the notation of mereology, I follow Büring and Kriz (2013), and assume the exhaustivity property of clefts can be phrased as the presupposition that the clefted constituent is not a proper part of the maximal individual for which the predicate holds (see section 2.2.3). In set theoretical terms, this means that the clefted constituent is not a non-empty proper subset of the set of individuals for which the predicate holds.

Theoretically, a wh-question can have much more than three entities that can fill the hole in the proposition, even infinitely many, and strange things happen at infinity. One should always be careful to make sure that results that hold for finite sets also apply to infinite sets before claiming them as general results. In this case, however, there are no problems. The existence of a power set for any set \( S \) is one of the axioms of set theory, and thus we must assume it holds also at infinity. Neither is it problematic to have a partition with an infinite number of cells, provided of course, that the set that is partitioned is itself infinite. While the context set might be only a very small subset of the set of all possible worlds, it is certainly still infinite, and so this causes no problem.

As an example of a question that partitions the set of possible worlds into a far higher (though still not infinite) number of cells than the constructed example in (85), consider the question in (86), from a novel by Karsten Alnæs.

(86) a. Hvem har synd- et for at vi skal straff-es slik?
   Who has sin-PAST for that we shall punish-PASSIVE such
   ‘Who has sinned, for us to be punished like this?’
   (SK01AlKa01.2962)

b. \( \{x \text{ has sinned: } x \in \mathcal{P}(D_e \cap \{\text{persons on earth throughout history}\})\} \)

The elements of the set in (86b) includes such propositions as “No one has sinned”, “Maria from accounting has sinned”, “The entire population of Sweden has sinned”, “Everyone taller than 1.75m have sinned”, and of course, “everyone has sinned”.

This approach to the denotation of questions has one important thing in common with the Hamblin (1973) approach, which also sets it apart from the theory of Karttunen (1977). This
conceptualisation of the denotation of questions includes false propositions in the denotation set. Exactly this aspect of the denotation set is vital to the analysis proposed here.

The inclusion of false propositions in the denotation set is vital because the analysis builds on an idea from Abusch (2009), that the presence of a set of alternatives triggers a presupposition that at least one of its members is true. On the Karttunen approach, a question denotes a set consisting of only true propositions. Since, by definition, all the propositions it contains are true, there is no need to presuppose that at least one of them is true.

Specifically, Abusch argues that the presence of alternatives gives rise to what she calls a “soft” (i.e. cancellable) existential presupposition. She makes this claim for questions, which she analyses to denote a set of propositions in the tradition of Hamblin (1973), and in situ focus. Her claim, then, is that a question or a sentence with in situ focus, introduces a set of alternatives, and at least one member of this set of alternatives must be true. Since these are Rooth-Hamblin sets, they do not include a proposition where the value of the variable is the negative quantifier (nothing, nobody, etc), and thus this presupposition logically entails the existence of at least one individual for which the predicate holds.

Abusch (2009) uses the word “soft” to describe the existential presuppositions derived from the presence of alternatives. The reason for this is that they are easily cancellable: A rhetorical question, for example, is uttered to imply that its answer is the negative quantifier, and thus it cannot at the same time presuppose existence.

It is interesting to note that the example of a “hard” presupposition that Abusch uses as a contrast to these “soft” presuppositions, is the existential presupposition of declarative it-clefts in English: “Throughout the paper, clefts will be used as a core case of a ‘hard’ presupposition trigger, where it is impossible or at least relatively hard to cancel the presupposition” (Abusch 2009, p. 40).

The observant reader will have noticed that combining the conceptualisation of the denotation of questions described earlier in this section, with Abusch’s mechanism to derive existential presuppositions does actually not result in an existential presupposition. This is not an accident, but rather a key part of the proposal, which is described in detail in the next section.
5.2 Proposal

The core proposal of this thesis is that Norwegian cleft questions have three properties that are absent from Norwegian non-cleft questions. Firstly, cleft questions carry an existential presupposition that non-cleft questions do not carry. Secondly, they also carry an anti-universal presupposition, which is also absent from their non-cleft counterparts. Thirdly, they are identity questions, equivalent to asking for the identity of a definite description.

These three properties are a result of the denotation set of the cleft version of a question containing two less propositions than the denotation set of the non-cleft version. The two excluded propositions are the one where the predicate holds for none of the potential individuals, and the one where it holds for all of them.

For this to represent a partition of the context set, the context set must be smaller when a speaker utters a cleft question than when they utter the corresponding non-cleft questions, more specifically, the former must be a subset of the latter. This is illustrated by the venn diagram in figure 3. In other words, a speaker would only utter a cleft question if the possible worlds contained in those two propositions were already excluded from consideration by some other means, if it was already common ground that that is not what the world is like.

On a Stalnaker (1974) view of presuppositions, this is equivalent to saying that a speaker who utters a cleft question presupposes that the answer to their question is neither the negatively quantified proposition nor the universally quantified one. To see that this is a reasonable assumption considering the speaker’s mental state, consider the two declarative Norwegian sentences in (87).

(87) a. Det er ingen som forstår meg.
   It is nobody that understand-NPST me
   ‘There is nobody that understands me.’ Not: ‘*It is nobody that understands me.’
b. Det er alle som forstår meg.
   It is everyone that understand-NPST me
   ‘Those are all the people who understand me.’ Not: ‘*It is everyone that understands me.’

On a surface level, these two sentences have the same structure as cleft sentences, and if the quantifiers were exchanged for noun phrases, then there would be no problem in reading them as clefts. As they are, however, the quantifiers force other interpretations. The sentence in (86a) must be interpreted as a presentational cleft, and the one in (86b) receives an interpretation where the initial det is referential, referring to a group of people who understands the speaker.

Cleft questions can generally be answered by cleft sentences, as illustrated in (88). Søfteland (2013) points out that the full cleft sentence is often not used, as the cleft clause was just uttered and does not need to be repeated. Often, answers look more like B2 or B3 in (88), but both of these are interpreted in the same way as B1 would have been. In other words, a one-phrase reply to a cleft question is interpreted as though it was the clefted constituent in a cleft sentence.

(88) A: Hvem var det som kjøpte huset?
   Who was it that buy-PAST house-DEF
   ‘Who was it that bought the house?’
   (SK01CaFi10.1187)

   B1: Det var Linda som kjøpte huset.
   It was Linda that buy-PAST house-DEF
   ‘It was Linda who bought the house.’

   B2: Det var Linda. It was Linda
   ‘It was Linda.’

   B3: Linda

The fact that the sentences in (87) cannot be read as cleft sentences thus show that neither the negative nor the universal quantifier are straightforwardly available as one-phrase answers to a cleft question, and thus neither are negatively or universally quantified propositions.
Since these propositions are not possible answers, it is a rational claim that the speaker presupposes that they are not true when asking the question.

Having argued that it makes sense that a speaker who utters a cleft question presupposes that the value of the variable is neither the negative nor the universal quantifier, and that the corresponding propositions should therefore not be included in the denotation set for cleft questions, what remains is to show that the correct presupposition can in fact be derived from the proposed denotation. Just as the denotation of non-cleft questions in the previous section, this denotation too can be phrased formally in three different ways. All of them are given in (89) below. C here represents the set of everything that is contextually relevant.

\[(89) \quad \text{Hvem er det (som)} \quad P? = \{P(x) : x \in \mathcal{P}(D_e \cap C)\} \setminus \{\emptyset, D_e \cap C\} = \{P(x) : x \subseteq D_e \cap C \land x \neq \emptyset\} = \{P(x) : x \subset D_e \cap C\}\]

These three possible phrasings are equivalent to each other for reasons that mirror exactly the reasons that the three different phrasings of the denotation set of non-cleft questions are equivalent to each other. Being an element of the power set of some set, is the same as being a subset of that set, so being an element of the power set minus the empty set and the set itself, is the same as being a proper subset. As stated in the previous chapter, Lewis (1991) shows that this is the same as being a proper mereological part of the set in question.

To understand what the formalisms in (89) mean in practice, consider again a question with a limited and clearly delineated set of alternatives. (90) is the cleft version of (85) from the previous section. The partition it denotes is identical from the partition denoted by (85), except for the fact that two of the cells that are included in the denotation of (85) are excluded from the denotation of (90). These two cells correspond to the negatively and universally quantified propositions, and are shown shaded in grey in figure 4. Each element in the set that is defined in three equivalent ways in (88) correspond to one cell in the partition illustrated in (90).

\[(90) \quad \text{Hvem er det du kjenn-er, Anne, Linda eller Petter?} \]
\[\text{Who is it you know-NPST Anne Linda or Petter}\]
\[\text{‘Who is it you know, Anne, Linda or Petter?’}\]
<table>
<thead>
<tr>
<th>You don’t know any of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>The one you know is Anne</td>
</tr>
<tr>
<td>The one you know is Linda</td>
</tr>
<tr>
<td>The one you know is Petter</td>
</tr>
<tr>
<td>The ones you know are Anne and Linda</td>
</tr>
<tr>
<td>The ones you know are Anne and Petter</td>
</tr>
<tr>
<td>The ones you know are Linda and Petter</td>
</tr>
<tr>
<td>You know all of them</td>
</tr>
</tbody>
</table>

No matter which of the three set definitions in (89) one prefers, the fact that the denotation is a set causes Abusch’s (2009) mechanism to take effect. The result is a presupposition that the disjunction of the set is true, or in other words that at least one of the propositions it contains is true. Starting from the third of the phrasings in (89) one can reason as follows in (91). Here, the wiggly arrow represents presupposition, while the double arrow represents logical entailment.

\[(91) \text{Hvem er det (som) } P = \{P(x) : x \subseteq D_e \cap C\}
\]
\[\sim \lor \{P(x) : x \subseteq D_e \cap C\}
\]
\[\Rightarrow \exists x \text{ such that } x \subseteq D_e \cap C \land P(x) \text{ is true}
\]
\[\Rightarrow \exists x \text{ such that } x \subseteq D_e \cap C \land x \subseteq P
\]

In words, this says that the fact that the denotation is a set gives rise to a presupposition, namely that the disjunction of the set is true. In other words, at least one of the propositions that make up the set is true. Therefore, it must be the case that there exists something that is relevant and of the appropriate semantic type, for which the predicate holds. This is what is stated by the second to last line. The last line also makes this same claim, but phrased in a slightly different way. Italic capital $P$ represents the set of everything for which the predicate holds, and this line says that there exists something that is relevant, of the appropriate semantic type, and in this set. In other words, we have arrived at the existential presupposition.

It does not follow from this that it is not the case that the predicate holds for everything that is relevant and of the appropriate semantic type, or that there is an identity relation between

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$^5$ Or, equivalently, the mereological fusion.
the variable and the cleft clause. To show that cleft questions do indeed have these two properties, it is necessary to combine the result above with the exhaustivity presupposition of Büring and Kriz (2013).

Büring and Kriz phrase this presupposition as “x is not a proper part of P”. From their discussion, however, it is clear that they do not intend for this to mean that x is not a proper part of everything in the world for which the predicate holds. Rather, P is implicitly taken to mean everything relevant for which the predicate holds, or in other words, the intersection of the things that are relevant and the things for which the predicate holds. For an English cleft sentence like *It is Mary who doesn’t like spicy food*, this means that Mary is presupposed not to be a proper part of the relevant people who doesn’t like spicy food. In other words, either Mary likes spicy food, or Mary is the only relevant person who doesn’t like spicy food. It is not necessary (or even likely), however, that Mary is the only person in the world who doesn’t like spicy food, the presupposition is only violated if there is another relevant person, e.g. in the friend group, who doesn’t do so.

Including this with the final statement of the existential presupposition above, we get the following:

\[
(92) \quad x \subseteq D_e \cap C \land x \subseteq P \land \neg(x \subseteq D_e \cap C \cap P)
\]

\[
x \subseteq D_e \cap C \land x \subseteq P \Rightarrow x \subseteq D_e \cap C \cap P
\]

\[
x \subseteq D_e \cap C \cap P \land \neg(x \subseteq D_e \cap C \cap P) \Rightarrow x = D_e \cap C \cap P
\]

The first line of (90) simply repeats the result of (89) together with the exhaustivity presupposition from Büring and Kriz (2013): The value for the variable in a cleft question is a proper part of the set of relevant things of the appropriate semantic type, a not necessarily proper part of everything for which the predicate holds, and not a proper part of the intersection of these two sets, i.e. everything relevant of the appropriate type for which the predicate holds. The second line says that if x is a proper part of the set of relevant things of the appropriate type as well as a part of the set of things for which the predicate holds, then x must be a part of the intersection of these two sets, in other words, the set of relevant things of the appropriate type for which the predicate holds. The third line combines this result with the exhaustivity presupposition: If x must be a part of this set, but not a proper part, then x must in fact be this set. This in itself is important, and relates to the equivalence between cleft
sentences and identity statements discussed in section 2.2.4, it shows that cleft questions are in fact identity questions.

Getting from here to the anti-universal presupposition is a single step:

\[(93) \quad x \subseteq D_e \cap C \land x = D_e \cap C \cap P \Rightarrow D_e \cap C \cap P \subseteq D_e \cap C\]

This line combines the equality from (90) with the fact that \(x\) is a proper part of the set of relevant things of the appropriate type. As a consequence, the set of relevant things of the appropriate type for which the predicate holds is a proper part of the set of relevant things of the appropriate type. In other words, there are relevant things of the appropriate part for which the predicate does not hold. This, then, is the anti-universal presupposition.

One controversial aspect of this proposal is the claim that non-cleft wh-questions do not carry an existential presupposition. Wh-questions are generally considered to carry just such a presupposition, and deriving it was one of the purposes of Abusch’s (2009) mechanism to get presuppositions from the presence of alternatives. However, Abusch herself calls this presupposition “soft” because it is easily cancellable. This high degree of cancellability can be taken as evidence that it is not in fact a presupposition at all, but rather something akin to a conversational implicature.

It is clearly true that also non-cleft wh-questions come with some kind of existential implication. Consider a non-cleft wh-question like the one in (94). It is asked by a journalist in Bergens Tiden de, a newspaper based in the city of Bergen, to one of the players on Brann, the most successful men’s football team in Bergen, as part of a piece about the team doing badly, especially in defence, and certain players being unhappy with their current trainer. The blame or guilt in question is about the bad defensive play.

\[(94) \quad Hvem har skyld-en?\]

Who has guilt-DEF
‘Who is to blame?’
(AV02BT950315046.37)

Clearly, a question like this comes with an implication that there is someone who is to blame. But this implication is not a presupposition, and the question can be answered by saying that no one is, without having to deny any presupposition.
Arguing that the so-called existential presupposition of wh-questions is in fact not a presupposition, and that only cleft questions really carry such a presupposition, is not new for Norwegian. This aspect of the proposal is in line with the suggestion in Lie (1978) that Norwegian cleft questions have existential presuppositions, while non-cleft questions merely have “suppositions”:

A supposition is somehow weaker than a presupposition. Informally we can say that a supposition of a wh-question is the speaker’s belief about the set the wh-word refers to, whether it is null or non-null.

That means that a question has two suppositions, one positive and one negative. The speaker may believe one of them to be true or he may have no opinion at all on the matter. (Lie 1978, p. 393-394)

Lie’s example of a question where the speaker believes the negative supposition to be true is a question of the kind that I have called positively polar rhetorical questions.

The identity aspect of the proposal is also important. Since cleft questions are equivalent to identity questions with definite descriptions, they are expected to carry the same presuppositions. Definite descriptions presuppose existence, and so do cleft questions. However, definite descriptions do not only presuppose existence, but also uniqueness and familiarity (Roberts 2004). Cleft questions, therefore, do not only presuppose the existence of something for which the predicate holds, but also that it is uniquely identifiable and familiar to the interlocutors.

The further claim of this thesis is that the analysis of Norwegian cleft questions proposed here is able to account for, at least in part, the distribution of clefts in different contexts and different types of special wh-questions in Norwegian. Specifically, cleft questions are impossible where their presuppositions are for whatever reason not met. Furthermore, where the presuppositions hold out of logical necessity, or where sensory input makes their truth obvious, the cleft version is typically obligatory. This is in line with Heim’s (1991) principle of Maximize Presupposition! Speakers presuppose as much as they safely can without risking presupposition failure.

It is clear that there are cases where clefts are optional in Norwegian wh-questions, and indeed parts of the literature have even claimed the optionality to be complete. This is not surprising, given that cleft questions presuppose something that non-cleft questions conversationally implicate. Presuppositions are in a sense “stronger” than conversational
implicatures, as they are more difficult to cancel, but both are kinds of non-at-issue meaning, and it is reasonable that the speaker in many cases can choose how to communicate on a non-at-issue level that they believe that something exists.

The remainder of this chapter applies this analysis to questions in different contexts and of different types. The goal is to show how this can be done, as well as to demonstrate that the analysis proposed here do in fact explain the pattern outlined in section 4.3

5.3 Standard questions

Standard information seeking wh-questions can be both cleft questions and non-cleft questions in Norwegian. It is not necessarily the case, however, that the same question is equally acceptable in both forms. Quite often, both options are possible, but one is better than the other. In other cases, only one of the two is fully acceptable.

This distribution is highly context dependent. Many cleft questions will look in isolation like they could just as well be non-cleft questions, and vice versa, but when context is taken into account, it might turn out to be the case that the other option is either outright impossible or at least a little odd. This context dependency is to be expected, as the difference in meaning between cleft and non-cleft questions are differences at the non-at-issue level, particularly that cleft questions have presuppositions that are not present for non-cleft questions. What can and cannot be successfully presupposed depends on what is in the common ground, and the common ground is in turn partly determined by the linguistic context.

For reasons of space, the context of the example questions will not be quoted in full. Instead, a summary of the relevant aspects of the context is provided for each question. As in the previous sections, C and P are used as a shorthand for the set of everything relevant and everything for which the predicate holds, respectively.

5.3.1 Questions with hva ‘what’ and hvem ‘who’

The first information-seeking cleft question to be analysed is the one given in (80b). It is clear that this is an information-seeking question, as it is asked by one person, to another, in order for the first person to gain information. As described in (95a) this is from a newspaper
interview with someone who has done well in life, asking the interviewee where his motivation comes from.

(95) a. Context: A newspaper interview with Morten Walderhaug. The journalist describes Walderhaug’s childhood, and their surroundings. They say to Walderhaug “you have had a steep career path” and follow it up with this question.

b. Hva er det som driv-er deg?

‘What is it that motivates you?’

(AV02BT970119019.61)

c. Q = \{x \text{ motivates the addressee : } x \subseteq D_e \cap C\}

d. Presuppositions: \forall Q \text{ and } \neg(x \subseteq D_e \cap C \cap P)

e. Intended pragmatic effect: \exists x \text{ such that } x = D_e \cap C \cap P \subset D_e \cap C

In words: There exists a maximal contextually relevant individual that motivates the addressee. This is not everything that is an entity and contextually relevant.

This is a context where the non-cleft version of the question would probably also be possible. However, the preceding statement that the addressee’s career path has been steep, seems to somehow favour the cleft version. The non-cleft version would be acceptable, but there would be less cohesion between the description of the addressee’s steep career path and the question about where their motivation comes from. As it stands now, the previous statement and the question together communicates, at a non-at-issue level, that the addressee must have some extraordinary source of motivation, that can explain his steep career path.

Technically, this cleft question denotes the set Q, given in (95c). This set contains all the propositions on the form “x motivates the addressee” where x is a proper part, or a non-empty proper subset, of the set of contextually relevant entities. Since Q is a set of alternatives, it triggers the presupposition that its disjunction is true, stated in (95d). At the same time, the cleft also triggers a presupposition that the value of the variable is not a proper part of the set of things that motivate the addressee. The first presupposition logically entails that there must be something that exists and motivates the addressee. Together they entail that nothing else motivates the addressee and that this thing that motivates the addressee is not everything in his surroundings, but rather some identifiable individual or set of individuals.
These results are fully in line with the intuitions about the difference between a cleft and a non-cleft question in this context. The cleft version is used because the steep career path causes the journalist to assume that the addressee must have some unique source of motivation, and the journalist wants to discover the identity of this motivation.

The next example question also contains *hva* ‘what’ as its question word. This question, too, is from an interview, this time with the Israeli author Etgar Keret, published in a book called *Litteratur i krig*, literally ‘literature in war’.

(96) a. Context: Keret is talking to the interviewer about the situation in Israel and his role as an author. He says he is only responsible for his own morals, and not those of any group. The interviewer says they are going to ask a big and probably difficult question, which turns out to be this one.

b. *Hva er det du prøv-er å oppnå som forfatter?*

   What is it you try-NONPAST to accomplish as author

   ‘What is it you are trying to accomplish as an author?’

   (SA00IsRu01.517)

c. Q = \{The addressee is trying to accomplish x as an author : x \(\subseteq\) D_\_e \cap C\}

d. Presupposition: \(\forall Q\) and \(\neg(x \subseteq D_e \cap C \cap P)\)

e. Intended pragmatic effect: There is something unique and identifiable that the addressee is trying to accomplish as an author

As before, the cleft question denotes a set of alternatives. The presence of this set gives rise to the same presupposition as before, namely that the disjunction of that set is true. Since all the elements in that set are propositions where the addressee is trying to accomplish at least one thing as an author, and at least one of them must be true for the disjunction to be true, this means that there must be something that the addressee is indeed attempting to accomplish as an author. Furthermore, in combination with the exhaustivity presupposition, this means as well that what he is trying to accomplish is unique and identifiable and not everything that one could potentially imagine that he was trying to accomplish.

In this context, the non-cleft question would probably be at least comparably acceptable. Had the interviewer asked this question instead, the set of alternatives would have included two more propositions, including the one where the value of the variable was the negative quantifier *ingenting* ‘nothing’. In this case too, we get the presupposition that the disjunction
of the set of alternatives must be true, but since this only requires that one of the propositions contained in it is true, and “The addressee is trying to accomplish nothing as an author” is a member of the set, this does not entail existence. Neither would this question carry an anti-universal presupposition.

That there would be no existential presupposition does not mean that the question would not give rise to an existential implication of some sort. Specifically, there would still be an existential conversational implicature. An addressee would assume that the interviewer, being a rational and cooperative participant in conversation, would only ask this question if they had reason to believe that the addressee was indeed trying to accomplish something. However, this implicature would be easy to cancel, and the interviewee could easily answer that he is not trying to accomplish anything in particular. As a cleft question, on the other hand, such an answer, while certainly still possible, would carry the sense of a contradiction or correction, implying that the interviewer was in some sense mistaken, which would be mostly absent if the original question did not contain a cleft.

The next example comes from a self-help book for students called Hjelp! Jeg er student: Om studentlivets psykologi, a title that translates to something like ‘Help! I am a student: About the psychology of student life’. Like the previous two, this too comes from an interview, but a rather different kind of interview; a therapeutic interview.

(97) a. Context: The author first writes some general tips for dealing with anxiety and panic related to exams and exam situations, and then gives a description of a case, a boy he calls Ernst who has serious problems with this. The author conducted a “think the worst” interview with Ernst, and this is the first question from that interview.

b. Hva er det du frykt-er skal skje til eksamen?
   ‘What is it that you fear will happen at your exam?’
   (SA02GrRo01.542)

c. Q = \{The addressee fears x will happen at their exam : x ∈ De∩C\}\(^6\)

d. Presupposition: \(\forall Q\) and \(\neg(x ⊂ De ∧ C ∧ P)\)

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\(^6\) This is a simplification. Of course, what Ernst fears will happen at his exam, is properly characterized as an event, rather than an entity or individual. However, event semantics is not relevant to this thesis, so for simplicity, events will be treated as individuals.
e. Intended pragmatic effect: There is something unique and identifiable that the addressee fears will happen at their exam

Just like in the previous two examples, the cleft question denotes a set of propositions that does not include those where the value of the variable is the negative or the universal quantifier. The presence of this set leads to the presupposition that the disjunction of it must be true, which entails that there must be something that Ernst fears will happen at his exam. Together with the presupposition of exhaustivity, it also entails that this thing (or set of things) Ernst fears is not everything that he potentially could fear.

In this case, the truth of the existential presupposition is already in the common ground between Ernst and the interviewer. The interview is happening precisely because Ernst is experiencing debilitating anxiety surrounding exams. That there is nothing that he fears will happen at his exam is therefore excluded as a possibility. The presupposition that what he fears is not everything that could potentially happen at the exam is also in the common ground, though in a different way. Common knowledge about the world, more specifically about exams and students, means that that possibility can easily be discounted. If nothing else, one can assume that Ernst does not fear that everything will go smoothly.

It should not be surprising, then, that this is a context where the cleft question cannot easily be exchanged for a non-cleft question. Since the truth of both the existential and the anti-universal presupposition is already in the common ground, Heim’s (1991) *Maximize Presupposition!* predicts that the cleft version, which is the only one that strictly speaking presupposes both existence and non-universality, will be preferred. That is also true in this case, using the non-cleft question here would seem at least a little odd and out of place.

All of the questions so far have had *hva* ‘what’ as their wh-element. As shown in chapter four that is by far the most common wh-element for cleft-questions. Turning now to the second most frequent wh-word in Norwegian cleft questions, *hvem* ‘who’ we have questions like (98b). This is from a book simply called *Roma* ‘Rome’.

(98)  
   a. Context: The author is recounting a story of a late evening in June when there was a traffic cork in Rome because the police had blocked a main road. Since no one appears to give out any information, the author asks one of the police officers this question himself.

   b. Hvem er det vi vent-er på?
Who is it we wait-NONPAST on
‘Who is it we are waiting for? / Who are we waiting for?’
(SA00EkSi02.2362)
c. $Q = \{ \text{We are waiting for } x : x \in D \cap C \}$
d. Presupposition: $\lor Q$ and $\neg (x \in D \cap C \cap P)$
e. Intended pragmatic effect: There is a unique person or group of persons that “we” are waiting for.

In perfect parallel to the questions with hva ‘what’, the cleft question denotes a set of propositions, each of which represent a cell in the partition of the set of possible worlds under consideration (the context set). The only difference from the hva-questions is that the fact that the question word is hvem ‘who’, restricts the possible values of the variable to human beings, or sets of human beings.

Since there is nothing in the denotation set of this question except for propositions where “we” are waiting for at least one person, and since the presence of a set of alternatives means that there is a presupposition that its disjunction is true, the logical conclusion is that there must be at least one contextually relevant person such that that “we” are waiting for that person. Furthermore, since the value of the variable is not a proper part of the set of contextually relevant people “we” are waiting for, the value of the variable must be all the contextually relevant people we are waiting for. Since the value of the variable must be a proper part of the set of contextually relevant people, this means that the question also presupposes that we are not waiting for all the contextually relevant people.

It would of course be possible for the addressee of such a question, the police officer in this example, to reply that in fact, “we” are not waiting for anybody at all, and there is some other reason the traffic has been blocked. This fact is not in contradiction with the existential presupposition, it is certainly possible, in general, to let someone know that they have presupposed something that is not the case. Answering this cleft question to deny that “we” are waiting for anyone would be an example of just this, and like other examples of denying presuppositions it has a feeling of contradiction or correction.

A non-cleft question is not impossible in this context. It is, of course, possible that there is some other reason that the traffic is stopped, and the speaker is aware of this possibility. But the speaker also knows Rome traffic, and knows that these kinds of roadblocks usually
happen when waiting for someone “important” to pass. Therefore, the risk he takes by taking it for granted that they are waiting for someone, and that this is common ground in the situation is a small one. *Maximize Presupposition!* says that speakers presuppose as much as possible without risking presupposition failure, the speaker in this case simply found the risk of presupposition failure to be negligible.

It is possible that the small risk of presupposition failure is preferred over another risk, that of being misunderstood. In this situation, where it would be natural to assume there were some less than elated moods, it would be quite easy to misinterpret a non-cleft question as an RQ meaning that they are not waiting for anyone. Such a question would be implicitly telling the police to hurry up and let people pass, and it could potentially be interpreted as a provocation. Using the cleft-question here makes it clear that that is not what is intended, and that this is in fact meant as an information-seeking question.

The question analysed here was of course not originally uttered in Norwegian, but rather in Italian. However, the fact that the author translates the question he asked in Italian, however that was originally phrased, to a cleft-question in Norwegian, should be taken as an indication that the cleft version is the most natural way to phrase this question in this context in Norwegian for the author. This question is not the only example question that was originally phrased in another language in Norwegian (this was also the case for the question in (93), for example) and this reasoning applies to all of them.

The differences in non-at-issue meaning are probably not the only reason why cleft questions are sometimes preferred over non-cleft questions in Norwegian. It might also be the case that the cleft version is chosen to avoid ambiguity regarding which constituent is being asked about. Since Norwegian lacks case marking on nouns and requires the verb to be in the second position, non-cleft questions with a transitive verb where the subject and the object can have similar semantic constraints have two possible readings. A non-cleft question like the one in (97) below has one reading where the constituent asked for is the subject and another where it is an object.

(99) *Hvem elsk-er Kristina?*

     Who love-NPST Kristina?

     ‘Who loves Kristina? OR Who does Kristina love?’
The cleft versions of these questions do not have the same ambiguity, as shown in (100) below. When the constituent asked for is the subject, the cleft clause is introduced by *som* and the object follows the verb. When the constituent asked for is the object, the cleft clause is probably without a complementizer, and the subject precedes the verb.

(100) a. Hvem er det Kristina elsk-er?
Who is it Kristina love-NONPAST
‘Who is it (that) Kristina loves?’
(SA02AlKa02.1619)
b. Hvem er det som elsk-er Kristina?
Who is it that love-NONPAST Kristina?
‘Who is it that loves Kristina?’

Speakers want to avoid presupposition failure, but more generally they want to avoid misunderstandings and keep the communication going smoothly. Most transitive verbs would not give rise to this potential ambiguity, for example because only the subject is typically human, or because the remaining argument is a case marked pronoun, but for those that do, one must expect that the speaker is willing to tolerate a larger risk of presupposition failure than they otherwise would, in order to avoid the risk of a misunderstanding caused by the ambiguity.

This problem is mostly relevant for questions with *hvem* ‘who’, but it can also apply to questions with *hva* ‘what’ as the question word, in cases where the verb can take two non-human arguments. It cannot, however, arise with any other wh-element.

### 5.3.2 Questions with *hvordan* ‘how’ and *hvorfor* ‘why’

While most of the cleft questions in my material were with *hva* ‘what’ or *hvem* ‘who’, cleft questions do also occur with other wh-elements. This section will look more closely at cleft questions with *hvordan* ‘how’ and *hvorfor* ‘why’

Hamblin (1973) decomposes *who* and *what* into ‘what human’ and ‘what non-human’ respectively. He does not offer any similar decomposition of *how* and *why*, and indeed he writes that a decomposition of *why* might be impossible inside the domain of Montague Grammar. Even now, 45 years later, pinpointing the exact meanings of *how* and *why*, or their
Norwegian equivalents \textit{hvordan} and \textit{hvorfor}, is not a trivial matter, and as a consequence, neither is pinpointing the exact meaning of questions that contain them.

Certainly, like all other questions, they denote a partition of the set of possible worlds that are currently under consideration, or in other words they denote a set of propositions. There is no reason to assume that they are special in this regard.

Cross (1991) argues that a question \textit{how/why P?} can be considered an ordered triple, (P, X, R). In this triple, P is what is called the “topic proposition”, the proposition that requires an explanation either in form of a reason or in form of a manner. X is a set of propositions that contain P and all the propositions that contrast with P in some particular way. I will take this set of propositions to be the focus meaning, or the set of focus alternatives, of P. Lastly, R is a relation, for a \textit{why}-question maybe that of cause or justification, for a \textit{how}-question maybe manner or path. Cross writes from the perspective of philosophy, and his motivation is primarily to answer the question of what constitutes an explanation. From the linguistic perspective of this thesis, the fine-grained differences between different relations are less relevant, and \textit{why}-questions will all be assumed to ask for a cause, just as \textit{how}-questions are all assumed to ask for a manner. A complete answer to a \textit{how}- or \textit{why}-question following Cross, is thus a proposition on the form \textit{P rather than any of the other propositions in X because/by Q}, where Q is said to be the core of the answer.

Cross’ account is a united account of \textit{how-} and \textit{why-} questions, but the two are not identical. In particular, two of the differences between them will be relevant here.

Firstly, while this analysis may well apply to all \textit{why}-questions, it clearly does not apply to all \textit{how}-questions. To see this, simply consider the question in (101). This can clearly not be answered by ‘you are doing, rather than jumping or sleeping, by Q’, no matter what the value of Q is.

\begin{quote}
(101) \textit{Hvordan g\aa-} \textit{det med deg?}
\begin{itemize}
\item \textit{How go-NPST it with you}
\item \textit{‘How are you doing?’}
\end{itemize}
\end{quote}

Secondly, while both \textit{how-} and \textit{why}-questions presuppose that their topic proposition is true, only \textit{how} questions actually carry an existential presupposition. Consider the two sentences is
(102). (102a), which claims that a proposition has no reason, is fine, while (102b) which claims that the same proposition has no manner is contradictory.

(102) a. Jeg gjorde det, men ikke av noen grunn.
    I did it but not of any reason
    ‘I did it, but not for any reason’

b. Jeg gjorde det, men ikke på noen måte.
    I did it but not on any manner
    ‘I did it, but not in any manner.’

Philosophically, it might be the case that it is equally necessary for everything that happens to have both a reason and a manner. Linguistically, however, it seems that most predicates are presupposed to have a manner, but not necessarily a reason. The fact that the so-called topic proposition is presupposed to be true thus gives rise to an existential presupposition for how-questions, but not for why-questions.

The first example question with one of these wh-elements to be examined in this section, is a cleft question with hvordan ‘how’. It is from a book about Ludwig Wittgenstein.

(103) a. Context: The author is attempting to give an overview of Wittgenstein’s opinions regarding language. Emphasis is placed on the close relationship between language and action, and how humans remain unconscious of the diversity of the ways in which we play with language. Then follows the question. It is followed by another question, asking what happens in and by linguistic acts.

b. Hvordan er det egentlig vi handler med språket?
    How is it really that we act through language?
    ‘How is it really that we act through language?’

    (SA03AmKn01.1879)

c. Q = {We act through language in x way : x ⊆ C}

d. Presupposition: ∨Q ∧ ¬(x ∈ D<sub><i>t</i></sub> ∩ C ∩ P)

e. Intended pragmatic effect: There is one unique way or set of ways in which we act through language

This is an example of a how-question that fits into Cross’ analysis. The topic proposition is that we act through language. The set of contrasting propositions is the focus meaning of this proposition, and thus depends on its focus structure. Several possibilities are in theory
possible here: If the subject is focused the set will contain alternatives like “other primates act through language”, and if the verb is focused, it will contain alternatives like “we communicate through language”, etc. In context, it is likely that the focus should be either on act (how do we act, and not just speak, through language) or on language (how do we act through language as opposed to through non-linguistic actions).

The topic proposition is presupposed to be true, and thus also presupposed to have a manner. Since this is a how-question, that means that it comes with an existential presupposition regardless of whether or not it is a cleft question. Unlike for questions with hva ‘what’ and hvem ‘who’ as their wh-elements, the presence or absence of an existential presupposition can clearly not be the deciding factor for whether or not a how-question contains a cleft.

The existential presupposition is not the only way in which cleft questions differ from non-cleft questions at a non-at-issue level, however, and so cleft and non-cleft how-questions are not left with the same presuppositions. Specifically, cleft questions are underlyingly identity questions with definite descriptions, in other words the cleft clause carry the same presuppositions as a definite description. A definite description presupposes existence, but it also presupposes uniqueness and identifiability. In other words, while all how-questions presuppose that a manner exists, cleft how-questions also presuppose that this manner is unique and identifiable, and in some sense salient.

The question in (103), then, is a cleft question, not because it presupposes that there is a manner in which human beings act through language, but because it presupposes that this manner is unique and identifiable, that there is one unique, identifiable and salient way in which human beings act through language.

The question in (104b) below is a cleft question with hvorfor ‘why’, taken from a newspaper article.

(104) a. Context: A newspaper article from 1997 about internet advertising, and how internet advertising is going to be different from advertising on television and in newspapers. An expert says that while tv can force us to watch the same commercial over and over again, advertising online happens on completely different premises.

b. Hvorfor er det for eksempel at man på internett-sid-ene til Libero

Why is it for example that one on internet-page-PL.DEF to Libero
får nyttig informasjon som «hva skal barn-et hete» og lignende?
get useful information like what shall child-DEF be.ca.lled and similar?
‘Why is it for example that one can find useful information like “what to name the baby” and similar on Libero’s websites?’
(AV02BT970401064.30)
c. Q = {One can find useful information on Libero’s websites because P : P ⊏ D_{s,t} } 
d. Presupposition: VQ = One can find useful information on Libero’s websites because they want to attract customers OR one can find useful information on Libero’s websites because Marcus made the websites OR…
e. Intended pragmatic effect: There is a uniquely identifiable reason that one can find useful information on Libero’s websites.

The proposition whose truth is presupposed and whose reason is asked for, the topic proposition of this question, in the terminology of Cross (1991), is given in (105a) below. Assuming that why-questions always involve a set of propositions that contrast with the topic proposition in one parameter, that is, the set the topic proposition’s focus alternatives, this set is in (105b). The question in (104b) then, should be understood to ask for a reason (cause, motivation, function, etc.) that the proposition in (105a) is true, rather than any of the other propositions that are elements of (105b).

(105)  a. One can find useful information like “what to name the baby” and similar on Libero’s websites.

   b. {One can find x on Libero’s websites : x ∈ \mathcal{P}(D_e) }  

From context, it is clear that the set in (105b) is really more restrained than that, and it seems likely that the answer that is sought has to do with Libero’s motivation, and so the question in (104b) can be understood to ask something like What is Libero’s motivation for putting useful information like “what to name the baby” and similar, rather than only information about the diapers they sell, on their websites?

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7 Beaver et al. (2017) put forward the principle that the focus meaning of a sentence should always be a superset of the denotation of the Question Under Discussion. If the focus meaning is a Rooth-Hamblin set, where each proposition contains only one value for the variable, but the denotation of questions is a partition of the context set, then this is impossible. To achieve the Focus Principle, which is valuable, while holding on to the Groenendijk and Stokhof (1984) understanding of questions, the variable must range over, not the set of elements of the appropriate semantic type, but rather the power set of this set. This means, for example, that “Anne and Lisa” would be a focus alternative to “Lisa”.

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Like any other question, the cleft *why*-question in (104b) denotes a set of alternative propositions, where each cell represents a cell in a partition of the context set. The presence of the set of alternatives triggers the presupposition that the disjunction of the set, and thus at least one of its elements, is true, which entails that a reason, in this case probably to be understood as a motivation on Libero’s part, must exist. This fits nicely with the context, which by explaining how online advertising must differ from other advertising just prior to this, seems to suggest that there is a reason and it has to do with marketing.

Cleft questions with *hvorfør* ‘*why*’ offer a second question, of what exactly should count as a cleft question. For questions like (104b) the wh-element is also the clefted constituent, but it is also possible to have questions with *hvorfør* ‘*why*’ that contain a cleft, but where the clefted constituent is something other than *hvorfør*. Consider the sentences in (106) below.

A sentence like (106c) is a question that contains a cleft and has *hvorfør* ‘*why*’ as its cleft element, but the clefted constituent is not *hvorfør*. (106c) is properly grouped together with the declarative in (106b), they both have the subject, “Anna” as the clefted constituent. (106e) looks very similar to (106c), only the complementizer and its placement differ, but the two questions are not the same. (106g) is different from both of these, as it contains both clefts. The idea from Cross (1991) of a set of propositions that contrast with the so-called topic proposition is useful to explain differences in meaning between the questions.

(106) a. Anna skrek fordi hun var sint
    Anna screamed because she was angry
    ‘Anna screamed because she was angry.’

b. Det var Anna som skrek fordi hun var sint.
    It was Anna that screamed because she was angry
    ‘It was Anna who screamed because she was angry.’

c. Hvorfør var det Anna som skrek?
    Why was it Anna that screamed
    ‘Why was it Anna that screamed?’

d. Det var fordi hun var sint (at) Anna skrek.
    It was because she was angry (that) Anna screamed
    ‘It was because she was angry that Anna screamed.’

e. Hvorfør var det (at) Anna skrek?
    Why was it (that) Anna screamed?
‘Why was it that Anna screamed?’

f. Det var fordi hun var sint (at) det var Anna som skrek

It was because she was angry (that) it was Anna that screamed

‘It was because she was angry that it was Anna that screamed’

g. Hvorfor var det at det var Anna som skrek?

Why was it that it was Anna that screamed

‘Why was it that it was Anna that screamed?’

Without reference to any contrast, (106c) and (106e) appear like they should be identical, as the topic proposition in both is simply Anna screamed. However, in (106c) the cleft indicates a focus on Anna, which causes the set of contrasting propositions to be the one based on alternatives to Anna i.e. \{x screamed : x ∈ \mathcal{P}(D_\varepsilon)\}. In other words, the set of contrasting propositions are the focus alternatives of the topic proposition. For (106e) there is no cleft that indicates a focus on Anna. It is still possible to give Anna in situ focus, but the two questions would still not be identical in meaning. Since (106c) has Anna as a clefted constituent, it presupposes that Anna is not a proper part of the people who screamed, which means Anna must have been the only one to scream. A natural interpretation of (106c) would therefore be, “why did Anna scream, and no one else?” In situ focus does not come with an exhaustivity presupposition, and unlike (106c) this question can very well be asked when multiple people screamed. In such a situation it would mean something like “What was Anna’s reason for screaming, as opposed to the other people’s?”

The topic proposition in (106e) can also be interpreted with a focus on skrek, thereby asking why Anna screamed, rather than, say, laughed, or with broad focus, thereby asking why it was the case that Anna screamed, rather than that Lisa fainted or Mary yelled.

The question in (106c) contains a cleft, and it is a question, but since the clefted constituent is not the wh-element, it does not carry the same presuppositions, and should not be classified as a cleft question. (107b) is an example of a question of the same kind from my material. It is from a book called Krev din rett! Which translates to something like ‘demand your rights!’, about women and Islam. Like in (106c), its clefted constituent is the subject of the cleft clause, not the wh-word. Therefore (107b) is not a cleft question and does not give rise to the same presuppositions that cleft questions do.
a. Context: An essay that appears to be about the conditions in the Netherlands. The author writes that their hypothesis is that the fundamental principles of traditions in Islam, in combination with the traditions of the individual ethnic groups, crash with the fundamental norms of the Netherlands, and that Muslim immigrants lagging behind socioeconomically can be explained by them not adopting the Dutch norms. Then comes the heading samfunnsrelevans ‘relevance to society’, and the question is the first sentence after this heading.

b. Hvorfor er det bare integrasjons-problematikk-en til-knyttet muslim-er som om-tal-es i dette essay-et? ‘Why is it only the integration issues associated with Muslims that are addressed in this essay?’

(SA04AlAH01.760)

c. Q = {Only the integration issues associated with Muslims are addressed in this essay because X : X ∈ Dₜₜ, DEF ∨ X = Ø}

d. Presupposition: ∀Q and

¬(integrasjonsproblematikken tilknyttet muslimer ⊑ Dₑ ∩ C ∩ P) and integrasjonsproblematikken tilknyttet muslimer ⊑ Dₑ ∩ C ∩ P

e. Intended pragmatic effect:

integrasjonsproblematikken tilknyttet muslimer = Dₑ ∩ C ∩ P

In words: The integration issues associated with Muslims is identical to what is addressed in this topic.

The fact that (107b) is not a proper cleft question does not mean that the cleft is not relevant to the meaning of the question. The cleft in this question limits the possible interpretations of the question, making it so that the only possible interpretation is that it asks why the integration issues associated with Muslims were the ones to be addressed.

This question does not only contain a cleft, but also the focus particle bare ‘only’. Declaratives with bare presuppose what declaratives with clefts assert, and assert what declaratives with clefts presuppose. Having both in the topic proposition might therefore seem redundant. But it is actually not the case that the question would communicate exactly the same without the bare present. Leaving bare out would result in a question asking why
exactly this topic was the only one included, putting it in shifts the perspective slightly, and asks instead why other potential topics were excluded. Neither is it the case that asking the question with *bare* but without the cleft would necessarily result in the exact same question. The cleft makes it clear exactly what it is that is the focused constituent, and therefore exactly what it is that *bare* associates with. Including both the cleft and *bare* therefore helps disambiguate the question and minimize the risk of misunderstandings.

5.3.3 Questions with *hvør* ‘where’

Questions with *hvør* ‘where’ can be seen as occupying an intermediate position between questions with *hva* ‘what’ and *hvem* ‘who’ and questions with *hvordan* ‘how’ and *hvorfør* ‘why’. Unlike *what* and *who*, questions with *where* typically ask for an adjunct, not an argument. Unlike questions *how*- and *why*-questions, the variable does not range over a set of propositions, but rather over a kind of entities, in this case places.

*Hvør* ‘where’ pattern with *hvordan* ‘how’ and *hvorfør* ‘why’ in being uncommon in cleft questions, however. Of the three, *hvør* is the one that occurs the most often in clefts, and that is not surprising, given that a place is more likely to be unique and identifiable than a reason or a manner. The fact that all three of them are dramatically less common in clefts than in general does however suggest that the most important factor is that they are adjuncts rather than arguments.

Norwegian cleft questions with *hvør* ‘where’ can be analysed in the exact same way as other cleft questions in Norwegian, as shown by (108).

(108)  

a. Context: From a novel by Levi Henriksen. Two characters are discussing how to spend the day, and decide to drive to Sweden. They are at a farm where the main character’s brother used to live, before he committed suicide. The main character goes outside to start the car, but discovers that the battery is flat. He is annoyed and asks himself the question in (b), Jakob is the main character’s deceased brother.

b. *Hvør* var det Jakob hadde start-kabl-ene?

*Where was it Jacob kept the start cables?*

(SK01HeLe01.4080)

c. $Q = \{\text{Jacob kept the start cables in } x : x \in D_x \cap C\}$
d. Presuppositions: ∨Q and ¬(x ∈ D_e ∩ C ∩ P)
e. Intended pragmatic effect: There is a unique and identifiable place in which Jacob kept the start cables.

The presence of the cleft excludes the set of potential worlds where there is no such place, and the set of potential worlds where there are only such places. As a consequence, the cleft question in (108b) presupposes the existence of a place in which the start cables were kept. Furthermore, the combination of this with the exhaustivity presupposition causes the cleft question to also carry an anti-universal presupposition. Since cleft questions are underlyingly identity questions, it also presupposes uniqueness and identifiability.

5.3.4 Summary of standard cleft questions

Information seeking questions with clefts, differ from information seeking questions that are not clefts in the presuppositions they carry. Only cleft questions truly presuppose the existence of a non-null value for the variable, what is often called the existential presuppositions for questions in general is properly classified as a conversational implicature. Furthermore, cleft questions do not only presuppose that a value exists, but that it is unique, identifiable and in some sense salient, and beyond that, that it is not the entire set of contextually relevant elements of an appropriate semantic type.

Questions with hva ‘what’ or hvem ‘who’ as their wh-element are cleft questions much more frequently than questions with other wh-elements. This is to be expected, as it is more common for a predicate to apply to a unique and identifiable individual or set of individuals, than for a proposition to have a unique and identifiable manner or reason. Furthermore, questions with hvordan ‘how’ presuppose the existence of a manner regardless of whether they are cleft questions.

For questions with hva ‘what’ and hvem ‘who’ the deciding factor is often the existential part of the presupposition, since hva and hvem ask for individuals, and we generally assume individuals to be unique and identifiable.

For questions with hvordan ‘how’ and hvorfor ‘why’ this is turned on its head. Questions with hvordan already presuppose existence, and so it is whether or not it is appropriate for the question to also presuppose unique identifiability that frequently becomes the deciding factor. Questions with hvorfor do not strictly speaking presuppose the existence of a reason if they
are not cleft questions, but they conversationally implicate it, and our non-linguistic knowledge also leads to the assumption that one exists. Thus, the presupposition of existence is not enough to turn a *hvorfør*-question into a cleft question, and it must be the presupposition of a unique and identifiable reason.

Questions are also sometimes posed as cleft questions to avoid potential ambiguity. This is true for questions with a transitive predicate with similar semantic restraints on subject and object that ask for one of the arguments.

All of this said, for many questions in many contexts it is up to the speaker to decide whether they want to ask the question as a cleft question or not. Speakers can opt to use cleft questions when they want to simultaneously use the question to inform the addressee about a state of affairs, or they can use a cleft question in an attempt to seem like someone who is in the know about how something works.

One should be careful, especially with questions with *hvorfør* ‘why’, but to a lesser extent also questions with *hvordan* ‘how’ to make sure that the question is actually a cleft question, meaning that the wh-element is also the clefted constituent. When the wh-element is not the clefted constituent, the cleft serves to restrict the possible sets of contrasting propositions, thereby reducing ambiguity and making it clear exactly what it is that is being asked for.

5.4 Special questions

Section 4.3 gives an overview of the distribution of clefts in six different kinds of special questions, summarized in 4.4. This section will re-examine the same five kinds of special questions, and apply the analysis proposed in 5.2 in order to explain the distribution described in 4.3.

5.4.1 Surprise-disapproval questions

Section 4.3.1 concludes that SDQs are obligatorily cleft questions in Norwegian. Questions that are uttered by a speaker, not to request information, but rather to express their surprise and disapproval towards some specific aspect of the state of affairs, require the presence of a cleft in Norwegian. That is not to say that non-cleft questions cannot have an accusatory flavour, but the cleft is necessary for the question to really be an SDQ.
The fact that clefts are obligatory in these questions in Norwegian is especially worth noting, because SDQs often have hvordan ‘how’ as their wh-element. As shown in chapter 4, questions with how are significantly less likely to be cleft questions than questions with hva ‘what’ or hvem ‘who’ as their wh-element.

Norwegian SDQs require clefts because what the speaker does by uttering them is to express disapproval and surprise towards one unique aspect of the state of the world. For that to be possible, such a unique and identifiable aspect of the state of the world must exist, and hence it is completely safe for the speaker to presuppose that it does. Since there is no risk associated with this presupposition, the principle of Maximize Presupposition! requires that the cleft version is chosen.

Consider the SDQ given in (109), from a letter written by a mother for her estranged daughter.

(109) a. Context: A letter written by a mother to her adult daughter, to be kept by her lawyer until her death. The mother and daughter are estranged, and the letter mostly contains accusations that the daughter has not treated the mother fairly, and is also in general conducting her life in a way the mother disapproves of.

b. Hvordan er det egentlig du oppdrar barn-a?!
   ‘You’re not raising your children very well!’
   (SA00EiSt01.392)

c. Q = {The addressee is raising their children by X : X ⊎ D_{\leq t} \cap C}

d. Presupposition: \forall Q and \neg (x \subseteq D_e \cap C \cap P)

e. Intended pragmatic effect: There is a unique and identifiable way in which the addressee is raising her children, which is somehow salient.

How-questions, whether they are cleft questions or not, presuppose the truth of what Cross (1991) calls their topic proposition, i.e. the proposition whose manner is asked for. This question, then, presupposes that the letter-writer’s daughter is raising her children, and would do so even if it was not a cleft question. For it to be true that the letter-writer’s daughter is raising her children, it must necessarily be true that she is raising them in some way, that there is a manner in which she is raising them. This existential presupposition, then, does not distinguish between the cleft and non-cleft version of the question. As a consequence, the fact that the speaker can safely presuppose the existence of such a manner, cannot alone be the reason why this question requires a cleft.
The reason for this requirement lies instead in the part of the presupposition that requires this manner to be unique, identifiable and salient. For every event, its manner can be described in infinitely many partly overlapping ways. Different aspects can be foregrounded, and different descriptions used. This is true even for a very simple proposition, like “I jumped.” Descriptions of the manner can range from “high in the air” to detailed descriptions of which muscles are used in which ways, to judgements about whether or not the jump was graceful, to everything in between and all combinations thereof. Clearly, then, it is not the case that there is one unique description of the manner in which the letter-writer’s daughter is raising her children. What there is, however, is one unique aspect of the manner in which the children are raised that is salient and relevant to the letter-writer, namely that her daughter is not doing it well enough. By phrasing the question as a cleft, she is able to communicate exactly this to her daughter.

SDQs are often how-questions, but they of course also occur with other wh-elements. The example below is a what-question, which is uttered by the speaker to convey that they object to the addressee’s actions.

(110)  a. Context: A man is recounting the story of how he fled to Thailand. Before the actual escape, he went to Vietnam for two days, to create an illusion that he was an untrustworthy person who might suddenly be gone for a couple of days, hoping this will cause it to take longer before people look for him. When his friend finds out that he has been in Vietnam for two days, he responds by asking the man if he has gone crazy, followed by this question and a warning that he might lose his job.

b. Hva er det du holdt på med?!

‘What are you doing?!’

(SA02BrMa01.5271)

c. Q = {The addressee is doing x : x ⊏ De ∩ C}
d. Presupposition: ∨Q and ¬(x ⊏ De ∩ C ∩ P)
e. Intended pragmatic effect: There is something unique, identifiable and salient that the addressee is doing.

As above, the speaker is uttering this question to express disapproval of the addressee’s actions. For that to be possible, there must be something that the addressee is doing, and so, clearly, the existential presupposition is met also in this case. Furthermore, for it to make
sense for the speaker to react with surprise and disapproval, something that the addressee is
doing must currently be salient and identifiable. In other words, all of the presuppositions of
the cleft question are met, and so the cleft version of the question is required by *Maximize
Presupposition*.

While these utterances are semantically questions, and I have analysed them as such, I have
also claimed that their function in discourse is to communicate the speaker’s surprise and
disapproval. That is true, but it might be overly simplistic. While they are clearly not used to
convey the questions they look like on the surface, they do often retain a questioning quality,
often implicitly asking for an explanation for the state of affairs that the speaker objects to.
This is often reflected in the replies these utterances receive. The question in (111b) below is
an example of this, where the only reply the addressee gives is an explanation of his
appearance.

(111) a. Context: The main character of a crime novel, a police detective, returns home at
midnight after a long day at work. His wife has set the table for them in the kitchen
with a bottle of wine and two glasses. She exclaims the question upon seeing him. The
man answers by only saying *slagsmål* ‘(fist)fight’.
b. *Gud, hvordan er det du ser ut?!*
   ‘My god, how is it that you look?!’ (SK01JoJa01.2505)
c. \[ Q = \{ \text{The addressee looks like } x : x \in D_{e,t} \cap C \} \]
d. Presupposition: \( \forall Q \) and \( \neg (x \in D_{e,t} \cap C \cap P) \)
e. Intended pragmatic effect: There is a unique and identifiable salient way in which
the addressee looks.

In complete parallel to the two previous examples, the cleft version of the question is
required by *Maximize Presupposition* because all of its presuppositions are met.

The answer provided by the addressee is a one-word utterance. Questions are relatively
frequently answered by one-word utterances. Normally, these utterances identify the value of

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*I am choosing to analyse the variable in this example in this way, but this is a crude simplification. In reality,
everything from simple adverbs, like *bra* ‘well’, to adjectives, like *fin* ‘pretty’ (but not *fint* ‘prettyly’), to phrases
like *som et barn* ‘like a child’ and *som om du nettop har våka* ‘as if you just woke up’. What does seem clear it
that this is one of those *how*-questions where the variable is not a proposition.*
the variable. The remainder of the proposition is, after all, easily recoverable from context, and in many cases repeating it will not be necessary. However, this is clearly not what happens in this interaction. The detective, by answering the way he does, is not saying that he looks like a fistfight. Rather, he is saying that the reason that he looks this way that his wife finds objectionable, is that he was in a fistfight. To the extent, then, that SDQs in Norwegian retain a questioning quality in their function in discourse, what they ask for is an explanation for the state of affairs that the speaker objects to, not a description of this state of affairs.

5.4.2 Rhetorical questions

Section 4.3.2 concludes that clefts are impossible in positively polar rhetorical questions (RQ+s), but possible, though uncommon, in negatively polar rhetorical questions. This section aims to offer an explanation of this distribution, based on the proposed analysis.

A positively polar rhetorical question it uttered by the speaker as a way to communicate their belief that there is nothing in existence (or at least in the set of contextually relevant elements) for which the predicate holds. RQ+s are not uttered to request information about anything at all, but rather to make the speaker’s belief that there is nothing for which the predicate holds known. Since cleft questions, unlike non-cleft questions, actually presuppose existence, the purpose of an RQ+ is clearly irreconcilable with cleft questions. To see that this is the case, consider the RQ+ (64) from section 4.3.2, repeated here as (112b).

(112)  

a. Context: A cookbook called Spis deg ung!, literally ‘eat yourself young!’’, with recipes and recommendations for food that keeps you youthful. The question is the first sentence after the headline ‘Watermelon’ and is followed by a statement that while it is now possible to get watermelon year-round, it is still sweetest during summer. This is followed by factual information about different kinds of watermelons and their nutritional value.

b. Hva er vel mer sommer-lig enn en saft-ig skive rosa vann-melon
   What is PRT more summer-like than a juice-y slice pink water-melon
   ‘What says summer more than a juicy slice of pink watermelon?’
   (SA01ArGu01.1583)

c. Q = \{x says summer more than a juicy slice of pink watermelon : x \in D_e \cap C \lor x = \emptyset\}

d. Presupposition: VQ
e. Intended pragmatic effect: There is nothing that says summer more than a juicy slice of pink watermelon.

Just as any other question, the RQ+ in (109) denotes a partition of the set of possible worlds currently under consideration, or in other words, it denotes a set of propositions that are possible answers to the question, both true and false. Since this is not a cleft question, the variable ranges over all the elements of the power set of the set of contextually relevant entities, including both the set itself and the empty set. This is equivalent to saying that it ranges over the mereological parts of the set of contextually relevant entities, as well as the empty set, which is how this set is defined in (112c).

Since the denotation of (112b) contains alternatives, this causes the presupposition that at least one of those alternatives are true to arise. However, unlike for cleft questions, where the set of alternatives contain two propositions less, this does not lead to any non-tautological presupposition. Specifically, it does not lead to an existential presupposition.

Exactly this property of non-cleft questions is essential, and the reason that a cleft question would have been impossible here. An RQ+ must be interpreted as asserting non-existence, and thus it cannot at the same time presuppose existence.

This is also exactly what makes the question in (113b) (repeated from (65) in section 4.3.2) so puzzling. It contains the discourse particle vel, which normally forces an RQ-interpretation, but it is also a cleft question. As discussed in section 4.3.2 native speakers react to it as an oddly phrased question, and it is not immediately clear what it is intended to mean.

(113) a. Context: A man who has been pumped is resting in a hospital room. A female nurse comes in with something to drink for him and draws the curtains. She smiles at him. He wants her to talk to him, and the question in (b) is what he imagines that she would say if she did.

b. Hva er det vel du har gjort?
   What is it PRT you have done
   Literally: ‘What is it well you have done?’
   (SK01AnOl03.22)
c. Q = {The addressee has done x : x ⊏ D∩C}
d. Presupposition: ∀Q and ¬(x ⊏ D∩C ∩ P)
e. Intended pragmatic effect: There is something unique and identifiable that the addressee has done

The presence of the discourse particle vel would normally indicate that the question should be taken as an assertion of non-existence. However, the cleft in the question causes the question to presuppose that there is something that the addressee has done, in other words that it is not true that he has done nothing. These conflicting meanings, then, give rise to the oddness of the question, and the difficulties in determining its meaning.

Despite the presence of vel, then, this question is not easily interpreted as a rhetorical question. The presupposition of the cleft is sturdy enough to survive the added vel, and effectively blocks the RQ-interpretation. As discussed in section 4.3.2, if the question is to receive an interpretation, it must be that of an SDQ, the nurse shaking her head over whatever stupid thing the patient must have done in order to need pumping.

It is clear that RQ+s cannot be cleft questions. However, as discussed in section 4.3.2, the same restriction does not appear to hold quite as strongly for negatively polar rhetorical questions (RQ-), which occasionally occur as clefts. The question in (114b), repeated from (69), is an example of this.

(114)  a. Context: A blog entry where the blogger recommends weird and/or fun gadgets that one can put on one’s Christmas wish list. The recommendation this question is taken from is for a spoon meant for feeding children, that comes with wings and a tail, perfect for playing airplane. It starts by asking the reader if they have a small screaming child in their house that they still feed by spoon.

b. Hvem er det vel ikke som har sitt-et med barne-mat-skål-a og Who is it PRT not that has sit-PAST with child-food-bowl-DEF and lek-t fly med skje-en for å få junior til å spise opp play-PAST airplane with spoon-DEF for to get junior to to eat up middag-en sin dinner-DEF 3p.POSS

‘Who isn’t it that has sat there with the bowl of children’s food and played airplane with the spoon in order to get junior to finish his dinner?’

(UN05JA06177.76)

c. Q = \{x hasn’t sat there with the bowl etc. : x \in D_c \cap C\}
d. Presuppositions: \( \forall Q \) and \( \neg (x \in D_e \cap C \cap P) \)

e. Resulting pragmatic effect: There is a unique and identifiable salient person (or set of persons) who hasn’t sat there with the bowl of children’s food and played airplane with the spoon in order to get junior to finish his dinner.

As should be clear from (114), interpreting this question as though it contains canonical negation that belongs in the non-cleft version of the question, i.e. as if it originated in the cleft clause and has moved out of it, gives rise to a presupposition that is directly at odds with what the question is used to communicate. If one assumes this analysis of the negation in these questions, the proposed analysis is clearly not able to explain them.

However, the fact that the negation appears outside of the cleft clause in these questions, might be an indication that it should be analysed as taking a higher scope. Furthermore, Delfitto and Fiorin (2014) argue, based on data from several different languages, that the negation in negative rhetorical wh-questions is of the same type as the negation in negative exlamatives: clitic-like and/or higher in the syntactic structure, unable to license negative polarity items and biased towards the positive polarity (Delfitto and Fiorin 2014, p. 302). It is likely, then, that the contradictory presuppositions in (114) are not due to an incorrect analysis of RQs or of cleft questions, but rather to an incomplete understanding of the function of the negation in these questions. Developing this understanding further falls outside the scope of this thesis, and is left for further research.

### 5.4.3 Can’t-find-the-value-of-x questions

As discussed in section 4.3.3, CFCQs are sometimes cleft questions, but most often non-cleft questions. The distribution of cleft in CFVQs, then, resemble their distribution in Norwegian questions in general.

Considering that CFVQs are a kind of special question that often does indeed ask for information (they just also communicate that the speaker has been unable to find this information in spite of having tried), the fact that they have a distribution of cleft questions that is similar to that of standard information-seeking questions should not be surprising. Indeed, the same criteria that are relevant in determining whether or not a standard question should be a cleft question are the ones that are relevant also for CFVQs.
Consider a question like (115b). The presence of the phrase *i all verden* ‘in all (the) world’ makes it clear that this is indeed a CFVQ. It is a CFVQ that can still be considered information seeking, or at least could be if it had been directed at someone who could answer, rather than at the readers of a book.

(115) a. Context: a book about self-development, where the author writes about how hard it was for her to write the book, and how self-criticism stopped every attempt she made at writing. She was convinced that her spiritual guides had told her to write such a book, and so she was confused about why she was finding it so difficult. That is when she asked this question.

b. Hva i all verden var det som foregikk?
‘What in all world was it that happened?’
(SA00LyLi01.4258)

c. \(Q = \{x \text{ was going on} : x \in D_e \cap C\}\)

d. Presupposition: \(\forall Q\) and \(\neg (x \in D_e \cap C \cap P)\)

e. Intended pragmatic effect: There was something unique and identifiable that was going on.

The author is unable to figure out what it is that is going on, but she assumes that it must be something, as she is certain she would have been able to write if nothing out of the ordinary was going on. Since she is not able to write, she assumes that something out of the ordinary is in fact going on, she has just been unable to figure out what it is.

Like all cleft questions, this question too presupposes the existence of a unique and identifiable value for the variable. Since that is exactly how the author assumes the world to be, she chooses the cleft version of the question.

As mentioned above, it is possible for CFVQs to still be information-seeking. In a similar manner, it is possible for them also to combine with other question types. The question in (116b) below is a CFVQ, but it is also used to convey that in fact there is no reason why the addressee should feel that way, in other words it is also something that is at least very close to an RQ.

consistently talks herself down. After finishing the story, the author poses this question to the reader.

b. Hvorfor i all verden skulle du føle deg u-verdig til å bidra på job-en, hjemme, eller i samfunn-ellers
   ‘Why in all world should you feel you un-worthy to to contribute on job-DEF home or in society-DEF otherwise
   ‘Why on earth should you not feel worthy to contribute, at work, at home or elsewhere in society?’
   (SA01SpSi01.3291)

c. Q = {you should not feel worthy to contribute because X : ⊏ D_{<5,t>} \cap C}

d. Presupposition: \lor Q

e. Intended pragmatic effect: It is difficult to find a reason why the addressee should not feel worthy to contribute, probably because none exists.

   Since there is a set of alternatives, there is also a presupposition that the disjunction of this set is true. However, since this is not a cleft question, the set of alternatives include the proposition that no reason exists. The presupposed disjunction therefore does not give rise to any kind of existential presupposition.

   Exactly this absence of an existential presupposition, since what is intended by this question is to subtly tell the reader that they should not feel this way, or rather, that there is no reason they should. By using an CFVQ, the author is conveying that she has searched for possible reasons and been unable to come up with one. This question, which does not presuppose that such a reason exists, then passes the challenge on to the reader, while also implying that they, too, will be unable to find a reason, because such a reason is unlikely to exist.

   CFVQs are frequently used to express displeasure in addition to the speaker’s inability to find a value for the variable. This is the case in the next example, taken from a biography about the artist Ferdinand Finne.

(117) a. Context: After an argument with his partner, Finne calls a friend that has said he can stay with them if anything should ever happen, and then he calls in sick to his office. Two days later he shows up at his partner’s home. He (the partner) is furious, and says (b).

   b. Hvor i helvete har du vært, jeg har ringt kontor-et, de sa
Where in hell have you been I have called office-DEF they say. PAST du var syk.
you were sick
‘Where the hell have you been, I have called the office, they said you were sick.’
(SA03EITh02.2409)
c. Q = {The addressee has been in x : x ∈ Dσ ∩ C ∨ x = ∅ }
d. Presupposition: ∨ Q
e. Intended pragmatic effect: The speaker has been unable to locate the addressee, and
is displeased about this.

As all questions, it denotes a set of alternatives and thus presupposes that one of those
alternatives is true. However, as all non-cleft questions, the denotation set includes the
proposition that corresponds to there being no value for the variable, and so the presupposed
disjunction does not give rise to any existential presupposition.

What is interesting about this question, is that it is used more to convey the speaker’s anger
that he was kept in the dark about the addressee’s whereabouts than to ask for those
whereabouts. This property of the question is made clear by it not ending by a question mark
in writing. In a way, one could say that the can’t-find-the-value aspect has been foregrounded
at the expense of the question-aspect. What this question does, in discourse, is more to state
that the speaker has been unable to locate the addressee than to ask for the addressee’s
whereabouts.

5.4.4 Quiz and exam questions

As discussed in section 4.3.4, quiz and exam questions can take a multitude of forms. They
can be cleft questions, but they can also be non-cleft questions, polar questions (even when a
yes/no answer is not wanted), or they can even be phrased as imperatives and thus not be
questions at all. This section will be concerned only with those quiz and exam questions that
are phrased as wh-questions, either cleft or non-cleft, and discuss the differences in meaning
between these two versions in light of the proposed analysis.

Cleft questions presuppose the existence of a unique and identifiable value for the variable,
a presupposition they do not share with non-cleft questions. Non-cleft questions, too, imply
existence, but they do so by a conversational implicature, which is easier to cancel.
Furthermore they do not imply that the value is unique and identifiable, and they do not carry an anti-universal presupposition.

Quiz and exam questions are phrased by people who know their answers. Considering that fact, one could assume that they would almost exclusively be cleft questions, since they are asked by people who know, and thus can assume without taking any risk at all, that there is a unique and identifiable value for the variable. This is not the case, however, because it is not enough that the speaker knows a thing to be true for them to be able to presuppose it successfully. Presuppositions prototypically require that their content is common ground, in other words a teacher cannot phrase a test question as a cleft question unless they can assume that the existence of a unique and identifiable value for the variable is known also by their students.

There is one important exception to this, and that is when the teacher or quizmaster purposefully uses the cleft question to not only ask a question, but simultaneously communicate to the students or quizzers that such a value exists, in a backgrounded way. A teacher or quizmaster is in a position of authority, and so the presuppositions will easily be accommodated, even if their content is such that they would be questioned in a different context. This is the reason why a quiz can contain a question like (118), even though it would probably not be appropriate, in most other contexts, to assume that people in general know that there is something that can be bought in shops that sell classes that can be used to make slime.

(118) a. Context: A “megaquiz” about “everything between heaven and earth” on a quiz website, with 129 questions. Both the question before this one and the question after it were about Minecraft.

b. Hva er det man kan få kjøpt på brille-forretnings-er som ofte bruk-es til å lage slim?

‘What is it that can be bought in shops that sell classes and is often used to make slime?’

9 In case the reader is curious (I certainly was), the answer is apparently contact lens solution. The Norwegian Optometrist Association warns against the practice, however.
c. \( Q = \{ \text{x can be bought in shops that sell glasses and is often used to make slime} : x \sqsubseteq D_e \cap C \} \)

d. Presuppositions: \( \forall Q \) and \( \neg (x \sqsubseteq D_e \cap C \cap P) \)

e. Intended pragmatic effect: There is a unique and identifiable object
(or set of objects) that can be bought in shops that sell glasses and that is often used to make slime

Just like all other questions, the question denotes a set of propositions, equivalent to a partition of the set of possible worlds that are currently under consideration. This set does not include the set of worlds where there is nothing that can be bought in shops that sell glasses and can be used to make slime\(^{10}\). The reason that this set of worlds is excluded is because the quizmaster, by phrasing the question in such a way that it is left out, implicitly tells the quizzers that the world we are in is not in this set, and since the quizmaster is in a position of authority relative to the quizzers, at least concerning the facts that are asked about in the quiz, the quizzers accept this as the truth.

Clefts are sometimes also used in test questions because the existence of a unique and identifiable value for the variable really is common ground. The question in (119b) is an example of this.

(119) a. Context: A textbook called \textit{Yrkesøvelse}, about working with children. At the end of a chapter, there are several questions, for discussion, repetition and self-testing. This is meant as a question for discussion.

b. \textit{Hva er det som form-	extit{er} vår måte å forholde oss til andre på?}

‘What is it that shape-NPST our manner to relate us to others on’

(SA01BeTo01.1008)

c. \( Q = \{ \text{x shapes the way we relate to others} : x \sqsubseteq D_e \cap C \} \)

d. Presupposition: \( \forall Q \) and \( \neg (x \sqsubseteq D_e \cap C \cap P) \)

e. Intended pragmatic effect: There is something unique and identifiable that shapes the way we relate to others.

\(^{10}\) Neither does it include the set where everything can be bought in shops that sell glasses and is often used to make slime, but that is a set of worlds that the quizzers would probably be able to exclude on their own.
In a book like this, it can be assumed to be common ground that each individual relates to others in a unique way, and that the way we relate to others is not random, but rather has causes that it is possible to identify. And this exactly is what the use of the cleft question here causes this question to presuppose. The fact that this is common ground, or at least assumed to be by the text book authors, is exactly the reason why this question is phrased as a cleft question, as this is a case where *Maximize Presupposition!* prefers the cleft version.

Clearly, exactly what it is that shapes an individual’s way of relating to others is not easy to identify. This fact is reflected also in that this is a question for discussion, the students are not meant to be able to pinpoint the answer immediately, on their own. This is not in contradiction with the presupposition that the value is identifiable. The presupposition only demands that it is possible, theoretically, to identify the exact value, not that it is easy.

In other contexts, it is not appropriate to assume that the existence of a unique non-universal value for the variable is in the common ground. In these cases, the question can be used to inform the students (or quizzers) of this existence, as in (118) above, but in other cases this is not desirable or necessary. In a question like (120b), the phrasing of the question as a non-cleft does not give the students any help by removing the “nothing” and “everything” options, and exactly this can sometimes be a reason to phrase such questions as non-cleft questions.

(120)  a. Context: End-of-chapter questions in a high school science textbook, about sustainable development and environmental politics.
      b. Hva var nytt med Brundtland-kommisjon-en?
         ‘What was new about the Brundtland commission?’
         (SA01HaBo01.373)
      c. Q = \{ x was new about the Brundtland commission : x \subseteq D_e \cap C \vee x = \emptyset \}
      d. Presupposition: \forall Q
      e. Intended pragmatic effect: None.

This question, since it is not a cleft question, does not presuppose that there exists anything that was new about the Brundtland commission, and neither does it presuppose that it is not the case that everything was new about the Brundtland commission. Asking the question in this way, then, provides the students with less hints than asking it as a cleft question would, and exactly that is sometimes important when phrasing quiz and exam questions.
5.4.5 Again-questions

The questions that I have called again-questions are questions that ask for something the speaker once knew, or should know, but has forgotten. As discussed in section 4.2.6, they are very often cleft questions in Norwegian. Specifically, they always contain at least one of past tense, cleft, and an element meaning 'again', typically igjen, and usually at least two of the three.

Since the value of the variable is something the speaker used to know, it is clear that there must exist a unique and identifiable value for the variable. If no such value existed, the speaker couldn’t possibly have known it at an earlier point in time. If it was not unique, it could similarly not be the case that the speaker used to know the value of the variable in the past, since knowing a question generally requires knowing its exhaustive answer\(^{11}\)(see e.g. George 2011). The fact that a question is an again-question, then, means that the presuppositions of a cleft question is met.

Yet it is not the case that Norwegian again-questions are always cleft questions. In particular, they may be non-cleft questions if they contain igjen ‘again’. The reason for this is that the again in these questions take a very high scope and refer to a prior knowledge state of the speaker (Sauerland 2009), and when the question contains again it thus entails the presuppositions that result from a cleft question.

Similarly, the past tense that is used in many of these questions refers to the point in time before the present when the speaker was in possession of the knowledge they are now asking for (GDS). Past tense alone is not enough, though, because referring to a point in time is not enough to indicate that a unique value for the variable exists.

In contrast to the past tense, a Norwegian again-question can be acceptable with either only a cleft or only an igjen ‘again’ to mark them as an again-question. However, in order to avoid misunderstandings, speakers typically ask cleft questions that contain at least two of these three characteristics. In this way, the again-question has a reference to the past in addition to presupposing existence.

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\(^{11}\) The most important exception to this is questions involving modals. Knowing, e.g. who can help you with something does not necessarily require that you know of every potential helper.
The Question in (121b) is a typical example of an again-question in Norwegian, asked by a speaker who struggles to remember the name of someone he once knew. It carries two of the characteristics for again-questions, as it is both a cleft question and in the past tense.

(121)  

a. Context: The main character in a novel thinks about her family and childhood in Southampton, where she has not been for a while, and decides she wants to go there today. She decides to call for a driver to take her there, and wonders to herself if she can get the same nice young man who drove her last week. His is the name she is struggling to remember when she utters the question.

b. Hva var det nå han het?  
What was it he be.named.PAST  
‘What was his name again?’

(SK01CIMa01.1549)

c. Q = {His name was x : x ∈ De ∩ C}

d. Presupposition: ∀Q and ¬(x ∈ De ∩ C ∩ P)

e. Intended pragmatic effect: There exists a unique and identifiable name that was his name.

Here, the fact that this is a cleft question causes it to presuppose the existence of a unique and identifiable name that belonged to the male person referred to by the pronoun. In addition to this, the use of the past tense gives the question a reference to the point in time (presumably when he drove her last week) when the name was known to the speaker. Together, these two features make it clear that this is an again-question.

Considering that the man whose name is in question is a young man who drove the speaker last week, there is no reason to believe that he is no longer alive. Nor is there any reason to believe that he has changed his name. Whatever his name was a week ago, he is likely to still be alive and go by that name at the time of speaking. From this perspective it would be more natural to use the non-past, as use of the past tense in Norwegian generally require the action to have ended. That the non-past is used despite this is typical of again-questions.

In addition to these two features that identify the question as an again-question, it also contains the discourse particle nå, literally ‘now’, which is also common in again-questions in Norwegian. Sauerland (2009) writes that the German discourse particle denn naturally co-occurs with wieder ‘again’ in these questions in German. Nå is similarly natural in these
questions in Norwegian, which is noteworthy not least because nå as a discourse particle is elsewhere often considered archaic. Exactly what the semantic contribution of nå is in these questions lies outside the scope of this thesis.

It is just as possible for again-questions to be how- or why-questions as what- of who-questions. In particular, my material contains several questions with hvordan ‘how’ asking for the continuation of song lyrics or similar. The question in (122b) below is an example of exactly this.

(122) a. Context: A newspaper reports from a jazz festival. A journalist overhears some musicians discussing what they will play. One of them says they will start with a certain song, and one of the others reply like this.
   b. Hvordan var det den gikk, da?
      ‘How did that one go again?’
      (AV02BT950410091.6)
   c. Q = \{It went by X : X ⊏ D_{slug} \cap C\}
   d. Presupposition: \(\forall Q \text{ and } \neg (x \in D_e \cap C \cap P)\)
   e. Intended pragmatic effect: There is a unique and identifiable manner in which the song went.

Like the previous example, this question too is marked as an again-question by the fact that it contains a cleft and is in the past tense. Just as in the previous case, the fact that the song exists, and thus presumably goes exactly like it always has, would outside of an again-question require that the use of the non-past tense. However, since this is an again-question, the past tense does not refer to the time when the song went in a certain way, but rather to the time when the speaker knew what this way was. The former includes the present, and would therefore make the past tense impossible, but the latter does not include the present, since the fact that the speaker has forgotten this knowledge is exactly why he asks the question.

The presence of the discourse particle da, literally ‘then’, as a tag should be noted here. We have seen that another discourse particle, vel, causes questions to get an RQ-interpretation, and so it would be imprudent to assume that the presence of another discourse particle here does not impact the interpretation. Da can be taken to signal particular wonder from the speaker, and/or a degree of adversity (Borthen 2014), and would be unacceptable in RQs or
SDQs or other questions that do not include the speaker actually wondering about anything, but it is fully compatible with an again-question. Unlike nå, however, it is also very frequent outside of again-questions, both in questions and declaratives.

5.4.6 Summary of special questions

Some types of special questions require a cleft obligatorily, while the presence of a cleft is impossible in others. Most kinds of special questions, however, are compatible with both cleft and non-cleft questions, and the choice between them depends on other contextual factors than only the question type. This distribution is, with one notable exception, explainable by the proposed analysis.

A type of special question that must be a cleft question is SDQs, surprise-disapproval questions. For it to make sense for the speaker to utter such a question, there must be something to which they react with surprise and/or disapproval, and this aspect of the state of affairs must be identifiable and salient in the context. SDQs, then, always fulfil the presuppositions carried by cleft questions, and thus the cleft version is obligatory.

Positively polar rhetorical questions, on the other hand, cannot be cleft questions. These questions are uttered to express that there is no value that exists for the variable, which explains why they are incompatible with cleft questions, as they presuppose existence.

The remaining kinds of special questions can be both cleft and non-cleft questions. The criteria for which version is chosen are very similar to those for information-seeking questions, and amount essentially to what is in the common ground, and what the speaker wishes or doesn’t wish to introduce to the common ground in a backgrounded manner.

Again-questions are the exception to this, as they always fulfil the presuppositions to cleft questions. If the question contains igjen, however, these presuppositions are already present in the question, and so clefts are not necessary, though still possible, in again-questions that contain igjen.

The one kind of special question where the proposed analysis was not able to account for the distribution of cleft questions is negatively polar rhetorical questions. It is possible that this is due to the negation in these questions taking scope higher up than where they appear on
the surface, but the details of this lies outside the scope of this thesis and is left for further research.
6 Conclusion

This thesis has been concerned with the use and meaning of clefts in Norwegian wh-questions. In the introduction, this was broken down into three sub-questions. This conclusion will answer all of those questions in turn.

The first sub-question was whether some kinds of Norwegian wh-questions were more likely to contain clefts than others, and it turns out that this is in fact the case. Søfteland (2013) found that 16% of matrix wh-questions contained clefts, but these 16% are not evenly distributed among all kinds of such questions. Specifically, questions with hva ‘what’ or hvem ‘who’ are significantly more likely to be clefts than questions with other wh-elements. Furthermore, cleft questions are more often used to ask for arguments than for adjuncts, and more likely to be in the non-past than in the past tense. In special questions, clefts are obligatory in surprise-disapproval questions, and impossible in positively polar rhetorical questions. Again-questions, questions where the speaker asks for information that they used to have, but have forgotten, are very often cleft-questions, and if they do not contain igjen ‘again’, the cleft borders on obligatory. In the other kinds of special questions addressed in this thesis they are neither obligatory nor impossible, but neither is their distribution random.

The second sub-question concerned the relationship between the non-at-issue and information-structural meanings of clefts in declaratives and clefts in questions. Clefts in declaratives are known as a focusing construction, a property that does not straightforwardly carry over to clefts in wh-questions. However, focusing is not the only function of clefts in declaratives, and the other properties all carry over in some way. Firstly, clefts in declaratives give rise to an existential presupposition, and so do clefts in wh-questions. Secondly, clefts can be analysed as carrying the exact same exhaustivity presupposition whether they occur in declaratives or wh-questions. This is the Büring and Kriz (2013) version of this presupposition, namely that the clefted constituent is not a proper part of the set of everything relevant for which the predicate holds. Lastly, just as declaratives containing clefts can be considered to underlyingly be identity statements, cleft questions can be seen as underlyingly identity questions.

The third and last sub-question asked whether cleft-questions carry different presuppositions from non-cleft questions. The research described in this thesis show that they do, in several ways. Firstly, non-cleft questions do not actually presuppose existence, but “only”
conversationally implicate it. Secondly, cleft questions also come with an anti-universal presupposition that is not present in non-cleft questions. Lastly, the fact that cleft questions are underlyingly identity questions causes the cleft clause to carry the same presuppositions of uniqueness, identifiability and salience as definite descriptions.

As all research, this thesis too results not only in answers, but also in more questions. One such question is how negatively polar rhetorical questions should be analysed, and specifically where the negation takes scope. Another is whether it is possible to develop a distinction between the focus alternatives of an in situ focus constituent and the focus alternatives of a clefted constituent in a similar or even equivalent way to the distinction proposed here between the denotation set of a non-cleft question and that of a cleft-question. If it is, that might provide a potential explanation for the difference in cancellability in their existential presuppositions described by Abusch (2009).
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Corpus

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