Questions in context: the case of French wh-in-situ

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3 Context: the relevant notions

In the previous chapter, I discussed the different points of view in the literature regarding the properties of French *wh*-in-situ questions. As indicated in Chapter 1, the dissertation investigates the properties of these questions from two angles, both of which relate to context. The first is the information structure of the sentence (focus and givenness) and the second is the distinction between echo and information seeking questions (i.e. ordinary non-echoic questions). In this chapter, I develop and motivate my approach to focus and givenness (Section 1) and the distinction between echo and information seeking questions (Section 2). Together with Chapter 2, the chapter provides the background information that is needed to understand the remainder of the dissertation.

1 Information structure

The term information structure, as used in this dissertation, concerns focus and givenness (leaving aside the notion of topic). I start by briefly introducing these concepts and explaining why information structure may contribute to the observed data variation (Section 1.1). I then discuss focus (in *wh*-questions) (Section 1.2) and givenness (Section 1.3) in more detail, as well as the notion of contextual salience (Section 1.4), which plays a crucial role in both focus and givenness.

1.1 Introduction

The terms focus and givenness were also introduced in Chapter 1. As in Chapter 1, the notation $[]_{G}$ indicates that an expression is given, $[]_{F}$ indicates focus, and capital letters represent a pitch accent.

An expression is given if it already has a certain connection to the previous context, as in (1).

(1) Sinatra's reputation among industry musicians grew swiftly, and James always supPORted [the singer]$_{G}$.

[Büring 2016: 18, ex. 1]

The sentence in (1) mentions *Sinatra*. This makes the referent of *Sinatra*, that is, the singer Frank Sinatra, contextually salient. When the expression *the singer* is mentioned later in the sentence, its referent is already salient, as a result of which *the singer* is given (e.g. Büring 2016). As givenness is associated with deaccentuation in languages like English, the accentuation pattern in (1) is more natural than the one in (1') (Ladd 1980; Rochemont 1986; Selkirk 1984b).

(1') #Sinatra's reputation among industry musicians grew swiftly, and James always supported [the SINGer]$_{G}$.

[adapted from Büring 2016: 18, ex. 1]

Focus also indicates the relation of a sentence to the previous context, albeit in a different way. That is, the focus of a sentence is the only part of the content that does not have to be salient in the preceding context (e.g. Büring 2016; Schwarzschild 1999). Consider the example in (2).

(2) A: Who wants coffee?
B: a. [EDE]$_{F}$ wants coffee.
b. #Ede wants [COffee]$_{F}$.

[adapted from Rooth 1997: 271, ex. 1]

Because of Speaker A's utterance, 'wanting coffee' is salient in the context. *Ede* is the only part of (2a) that is not contextually salient; this is the focus of the sentence. The focus corresponds to the position of the *wh*-phrase in the preceding *wh*-question ('Question-Answer Congruence', Rooth 1992). That is, it indicates that it is Ede who wants coffee, and not John, Sue or Peter, etc. If the focus would be on *coffee* as in (2b), it would indicate that

Ede wants coffee, rather than for instance tea. This would not be in line with speaker A's question. As focus is associated with prosodic prominence (in many languages) (Jackendoff 1972; Truckenbrodt 1995), the accentuation pattern in (2a) rather than (2b) is the natural one in this context. In languages like English, focus determines the placement of the main pitch accent of the sentence (the Nuclear Pitch Accent), which falls on *Ede* in (2a) and on *coffee* in (2b).

1.2 Focus

This section discusses focus in more detail. First, I introduce two conceptions of focus, both of which are common in the literature (Section 1.2.1). This serves as background to a discussion about the role of focus in *wh*-questions. A common assumption in the literature is that in *wh*-questions, the *wh*-phrase constitutes the focus of the sentence. I examine the arguments for this view and argue that they are not conclusive, i.e. do not provide evidence against my assumption that the focus in certain *wh*-questions may differ depending on the context (Section 1.2.2). Finally, I specify my assumptions regarding the semantic representation of focus in *wh*-questions (Section 1.2.3).

1.2.1 Introducing two conceptions of focus

Two different conceptions of focus are common in the literature. I will refer to them as the 'new information approach' and the 'alternative semantics approach'.

The new information approach regards focus as effectuating a partition of the information content of an utterance (e.g. Halliday 1967; Jackendoff 1972; Lambrecht 1994). Under this view, focus constitutes the 'new' information in the utterance, the informative part. The 'old' information is the background, the part that is already presupposed. Consider speaker B's utterance in (3), in which *the movies* is the focus and the rest of the utterance is the background.

(3) A: Where did you go last night?
B: I went to [the MOvies]$_F$.

[adapted from Lambrecht 1994: 209, ex. 5.1]

According to the new information approach, it is 'old information' in speaker B's utterance that "speaker went to x" (Lambrecht 1994: 210). The 'new information', i.e. what speaker B's utterance contributes, is that the place where the speaker went to last night is *the movies*.

The other, alternative semantics approach conceives of focus as relating an utterance to a set of relevant alternatives (e.g. Krifka 2008; Rooth 1985; 1992; Zimmermann & Onea 2011). According to the 'alternative semantics of focus' (Rooth 1985; 1992), a sentence has both an ordinary semantic value and a focus semantic value. The ordinary semantic value of speaker B's utterance in (3) is simply the proposition that speaker B went to the movies (last night) (4a). Its focus semantic value is a set of propositions, namely the set containing the propositions that speaker B went to her aunt, speaker B went to Amsterdam, speaker B went to Sue's party, and so forth (4b).

(4) *I went to* [*the MOvies*]$_F$.

a. Ordinary semantic value
$[\![$ I went to [the MOvies]$_F$ $]\!]^O$ = 'I went to the movies'

b. Focus semantic value
$[\![$ I went to [the MOvies]$_F$ $]\!]^F$ = {I went to my aunt,
I went to Amsterdam, I went to Sue's party, ...}

The effect of the focus in speaker B's utterance in (3) is to relate the ordinary meaning 'I went to the movies' to the set of alternatives in (4b). In other words, "focus indicates for which part of its containing utterance U there existed relevant alternatives before U was uttered" (Zimmermann & Onea 2011: 1652).

Krifka (2008) argues against the new information approach, in favour of the alternative semantics approach. He shows that the notion of "newness" in some cases gives the wrong predictions. He also states that it

can be subsumed under the notion of focus as introducing alternatives. Namely, what is felt to be the 'new' part of a sentence is usually the selection of the ordinary semantic value in favour of the alternatives in the set. Krifka states that while there is a statistical correlate between 'newness' and the presence of alternatives, focus is best defined in terms of the latter.

1.2.2 Focus in *wh*-questions

With the above background in place, I consider the role of focus in *wh*-questions. As mentioned above, it is often assumed that the focus in *wh*-questions is the *wh*-phrase, regardless of the preceding context (e.g. Culicover & Rochemont 1983; Haida 2007; Lambrecht & Michaelis 1998; Rochemont 1978). This would mean that focus plays a different role in *wh*-questions than it does in declaratives, where what is focused differs, depending on the preceding context. This section reviews the main arguments given in the literature for the view that the *wh*-phrase constitutes the focus of a *wh*-question. I argue, following Jacobs (1984; 1991), Beyssade (2006), Eckardt (2007) and others, that these arguments do not provide evidence against the approach adopted in the dissertation. In particular, I suggest that there is no evidence against the idea that in certain languages, the focus in *wh*-questions depends on aspects of the preceding context, as in declaratives (cf. Büring 2016; Di Cristo 2016; Engdahl 2006; Erteschik-Shir 1986; Reich 2002; Rosengren 1991). Based on the behaviour of *wh*-fronting questions, one of the languages in which context affects the focus in *wh*-questions is French (Beyssade 2006; Beyssade et al. 2007).

One argument given in the literature for the view that the *wh*-phrase is always the focus is that the *wh*-phrase is the 'new' part of a question (Gunter 1966; Rochemont 1978). This argument is grounded in the new information approach to focus. It relates to the assumed existential presupposition of *wh*-questions, as the existentially presupposed content is taken to be the 'old information' of the utterance. For instance, the question in (5) is taken to presuppose the existence of an entity answering

the question, i.e. something that Mary bought.[15] The information that Mary bought something is therefore the 'old information' of the utterance.

(5) What did Mary buy?

The only part of the utterance that is not 'old information' is the *wh*-phrase, which is therefore seen as the 'new information' of the utterance. Similarly, in an answer to the question, i.e. *Mary bought* $[a\ book]_F$, the part of the sentence that answers the *wh*-phrase contains new information (cf. example (2) above).

However, this argument loses its power on the alternative semantics approach to focus. The new information approach is tailored to the declarative sentence type, which typically conveys information. As a *wh*-question typically *elicits* information, it is hard to see how any other part than the *wh*-phrase could be 'new information'. Yet the alternative semantics approach can also be applied to *wh*-questions. I illustrate this with (6).

(6) We assume Jones didn't meet with Barnes.
But when did Jones CALL Barnes?

[Büring 2016: 96, ex. 65]

In (6), 'Jones calling Barnes' is contrasted with 'Jones (not) meeting with Barnes'. As in declaratives, the focus seems to indicate for which part of the utterance there existed relevant alternatives before it was uttered. These would be of the form in (7b). The focus on *call* then has the effect of relating the ordinary meaning in (7a) to the set of alternatives.

[15] Recall from Chapter 1 that I consider what is traditionally called an existential presupposition to be an existential implicature, following Baunaz (2016), Büring (2016) and Jacobs (1991). I will briefly come back to this below.

(7) *when did Jones* [*CALL*]$_F$ *Barnes*

a. Ordinary semantic value
[[when did Jones [CALL]$_F$ Barnes]]^O = 'when did Jones call Barnes'

b. Focus semantic value
[[when did Jones [CALL]$_F$ Barnes]]^F = {when did Jones see Barnes, when did Jones tease Barnes, when did Jones help Barnes, ...}

So while the new information approach is not well-suited to the idea that the focus in *wh*-questions is anything other than the *wh*-phrase, the alternative semantics approach allows for the idea that the focus in *wh*-questions differs depending on the context. Under this latter view, the existential presupposition or implicature (see footnote 13) associated with *wh*-questions should be distinguished from the notion of background to a focus (Jacobs 1991). The question in (6) still introduces the implicature that Jones called Barnes at some point, but this does not affect the focus structure.

The second argument given in the literature for the view that the *wh*-phrase is the focus relates to the similarity between the focus semantic value of a declarative and the denotation of a *wh*-question. Both of these involve alternatives, which I illustrate with example (2), repeated as (8).

(8) A: Who wants coffee?
B: a. [EDE]$_F$ wants coffee.
b. #Ede wants [COffee]$_F$.

[adapted from Rooth 1997: 271, ex. 1]

On the alternative semantics approach to focus, the effect of focus in (8a) is to relate the ordinary meaning of the utterance (i.e. the proposition that Ede wants coffee) to the set of alternatives in (9).

(9) {John wants coffee, Sue wants coffee, Peter wants coffee, ...}

The denotation of a question is standardly taken to be a set of propositions that form potential (true) answers to it (Hamblin 1973;

Karttunen 1977). Therefore, a set of propositions of as in (9) is also the denotation of speaker A's question in (8).[16] The similarity between the sets of alternatives involved in the question and in the focus semantic value of the answer is seen as an argument for the idea that the *wh*-phrase is the focus in *wh*-questions. For instance, Beck (2006: 12) states that "*wh*-phrases, like focus, introduce a set of alternatives".

However, even if *wh*-questions and focus both involve alternatives, this does not mean that they resemble each other in the sense that the alternatives would have the same status (Büring 2016). Whereas a *wh*-question *denotes* a set of alternatives, focus *relates* the ordinary meaning of a sentence to an unrestricted set of alternatives. Büring calls the alleged resemblance between the two sets "a consequence of loose talk" (p. 98).

Another argument that has been provided for the idea that the *wh*-phrase constitutes the focus in a *wh*-question pertains to Question-Answer Congruence. Question-Answer Congruence regulates what is an appropriate answer to a question (see Section 1.1). It refers to the observation that "the ordinary semantic value of a question be a subset of the focus semantic value of a corresponding answer" (Rooth 1992: 9-10). Question-Answer Congruence is also seen as an indication of the close relationship between a question denotation and focus.

Note however that it is the *ordinary* semantic value of a *wh*-question that is involved in regulating what is an appropriate answer. This does not preclude the possibility that a question also has a focus semantic value that is affected by the preceding context.

A final argument that is given for the idea that the *wh*-phrase is always the focus is that the *wh*-phrase is in many languages marked as the focus, for instance by syntactic movement, prosody or a particle. (Data from different languages can be found in Haida (2007) or Sabel (2006).) It has been shown for many languages with a designated position in the

[16] To be precise, in the focus semantic value of the answer in (8a), the individual wanting coffee is only restricted by semantic type. Yet in the set denoting speaker A's question in (8), the individual wanting coffee is further restricted to be a person. This is due to the meaning of the *wh*-phrase *who*. Consequently, the set denoting the question is a subset of the focus set involved in the answer.

sentence for foci, such as Hungarian, Slavic and Bantu languages, that the *wh*-phrase is also situated in this position (e.g. Aboh 2006; Bŏsković 1999; Horvath 1986; Lipták 2001). Likewise, some languages mark the *wh*-phrase prosodically as the focus of the question (Büring 2016; Ladd 2009). In these languages, the preceding context does not affect prosodic focus marking.

Yet, there is another group of languages that do not mark the *wh*-phrase as the focus of the question. According to Ladd (2009), languages fall into one of two groups in this respect (Ladd 2009: 226-227; see also Büring 2016: 96-98). That is, in many languages, context may affect the prosody of *wh*-questions. For instance, the accentuation represented in (10a) rather than in (10b,c) is the most neutral one, while renditions of the sentence as in (10b) or (10c) impose specific restrictions on the context in which they are used (Erteschik-Shir 1986, who cites Gunter 1966). (10b) might be uttered if the preceding context specifies that John ate the beans, but not at what point in time this happened. Similarly, (10c) could be uttered if the preceding context indicates the time at which John *prepared* the beans, but not when he ate them.

(10) When did John eat the beans?
  a. When did John eat the BEANS?
  b. WHEN did John eat the beans?
  c. When did John EAT the beans?

[adapted from Erteschik-Shir 1986: 118, ex. 5, who cites Gunter 1966: 172]

A *wh*-word can carry the main pitch accent, as in (10b). Yet, this then corresponds to properties of the preceding context, as the context can lead to a narrow focus on the *wh*-phrase (Engdahl 2006; Erteshik-Shir 1986; Reich 2002; Eckardt 2007; Büring 2016: 96-98). So the argument that the *wh*-phrase is (prosodically) marked as the focus only holds for one group of languages. Based on the behaviour of *wh*-fronting questions, this group does not include French (Beyssade 2006; Beyssade et al. 2007).

All in all, the arguments given in the literature for the view that the focus in *wh*-questions equals the *wh*-phrase, irrespective of the context, are not conclusive. There are no clear objections against the idea that, in

certain languages including French, the context affects what is focused, in *wh*-questions as in declaratives.

1.2.3 Semantic representation of focus in *wh*-questions

I assume the semantic representation of focus in *wh*-questions that has been proposed by Jacobs (1984; 1991) and applied to French by Beyssade et al. (2004ab). (Alternative proposals can be found in Reich (2002) and in particular Eckardt (2007).) In Jacobs' approach, the partition of an utterance into focus and ground takes place within the scope of an illocutionary operator. The focus is the part of the content that is "inhaltlich besonders betroffen", i.e. specifically affected, by this operator (Jacobs 1984: 30). In declaratives, the focus is the part of the content that is asserted in particular, while in interrogatives, the focus is specifically affected by the QUESTION operator.[17] This operator represents the semantic interrogativity of the *wh*-phrase, i.e. the interrogative sentence type. The operator combines into a formula together with an utterance in which a variable is bound by a λ-operator. I illustrate this with the question in (11a), in which the focus is *in the living room*. The matching formula is displayed in (11b).[18]

(11) a. Who has eaten [in the LIving room]$_F$?
b. QUESTION(λX_{NP} [# $\underline{\lambda Y_{PP}\,[X \text{ has eaten } Y]}$, $\underline{\text{in the living room}}$ #])
background focus
c. λX_{NP} [X has eaten in the living room]

[translated from Jacobs 1991: 202, exs. 2 and M2]

The utterance that combines with the QUESTION operator in (11b) contains the variable 'X', bound by a λ-operator. This corresponds to the *wh*-phrase *who*. The division of the utterance content into focus and

[17] In Jacobs' work, which is written in German, it is called 'FRAGE'.

[18] The symbols '#...#' are used by Jacobs to indicate that the illocutionary operator, QUESTION in an interrogative, applies to the focus-background structure, which stands between '#...#'.

background takes place within the scope of the QUESTION operator. The background part of the formula contains the variable 'Y' at the position of the focus, which is bound by a second λ-operator. Function application of the background to the focus *in the living room* yields the meaning in (11c), which is the set of possible answers to the question, cf. the alternative semantics approach.

In summary, Section 1.2 considered the main arguments for the idea that the *wh*-phrase equals the focus in *wh*-questions, irrespective of the preceding context. I concluded that none of these are clear arguments against the assumptions put forward in Chapter 1. Following Jacobs (1984; 1991), Beyssade (2006), Eckardt (2007) and others, I therefore assume that in certain languages, the focus differs depending on the context, as in declaratives. Based on the behaviour of *wh*-fronting questions, one of these languages is French (Beyssade 2006; Beyssade et al. 2007).

Chapter 4 will show that focus plays an important role in the prosody of French *wh*-in-situ questions and the observed data variation, which provides evidence supporting the adopted approach.

1.3 Givenness

The second information structural notion that plays an important role in the dissertation is givenness. In this section, I present the definition of givenness I use (Section 1.3.1) and lay out how givenness relates to focus (Section 1.3.2).

1.3.1 Definition of givenness

Recall the example in (1), repeated here as (12). In this example, *the singer* is given because the referent of *Sinatra*, the singer Frank Sinatra, is already salient in the context.

(12) Sinatra's reputation among industry musicians grew swiftly, and James always supPORted [the singer]$_G$.

[Büring 2016: 18, ex. 1]

Contextual salience will play an important role in the dissertation. Following Büring (2016), I will call a salient meaning that makes an expression given a 'Contextually Salient Meaning (CSM)'. For instance, in (12), the relevant CSM is the singer 'Frank Sinatra', i.e. the referent of *Sinatra*.

I also use Büring's (2016) concept of givenness (13). It employs notions conceived of by Schwarzschild (1999), like the idea that entailment regulates what part of a sentence is given in a particular context.[19]

(13) *Given*
An expression is given if (following existential type shifting) there is a CSM that entails it.

The definition in (13) states that an expression is given if there is a CSM that entails it. Yet, every part of a sentence can be given and entailment is a relation between two propositions. To solve this problem, Schwarzschild, followed by Büring, assumes an 'existential type shifting' operation that turns expressions into propositions.[20] For instance, an expression like *apple* can be type shifted into '∃x. [apple(x)]', which is a proposition. If a phrase like *green apple* has been mentioned in prior discourse, it makes *apple* given, as '∃x. [green-apple(x)]' entails '∃x. [apple(x)]'. So an expression is given if there is a CSM that entails it, if necessary following existential type shifting.

[19] Schwarzschild (1999: 151) treats referential expressions (like *the singer* in (12)) differently from expressions of other semantic types. He suggests that a referential expression is GIVEN when it is coreferential with a salient antecedent, while GIVENness of other types of expressions involves entailment, cf. (13). In contrast, Büring (2016) suggests that givenness as described in (13) can also account for referential expressions like *the singer*. I follow Büring (2016) here, but the difference is of no consequence for later chapters.

[20] Büring (2016) calls Schwarzschild's (1999) 'existential type shifting' 'existential closure'.

1.3.2 Relation of givenness to focus

One might think that given constituents are always those that are not focused, but this is not the case. First, note that it is possible to focus a pronoun (14), indicating that given constituents can be focused (Krifka 2008).

(14) Mary only saw [HIM]$_F$.

[Krifka 2008: 263]

Example (14) contains a focus that is completely given. A focus can also be partially given. In (15), the VP is focused and part of the focus, *John*, is also given (Féry & Samek-Lodovici 2006).

(15) A: What did John's mother do?
B: She [PRAISED John]$_F$.

[Féry & Samek-Lodovici 2006: 136, ex. 17, A2]

So the notions of focus and givenness are not complementary (Büring 2016; Féry & Samek-Lodovici 2006; Krifka 2008).

I mentioned in Section 1.1 that (in languages like English) focus is associated with prosodic prominence, while givenness is associated with deaccentuation. So how do they interact prosodically when (part of) the focus is given? When a focus is completely given, focus accentuation overrides givenness deaccentuation (Büring 2016; Krifka 2008). Example (14) above, in which the pronoun *HIM* is focused, shows that focus is expressed by prosodic prominence, also when the focus is given. Yet when a focus is partially given, one part of the focus is still prosodically prominent, but the given part is deaccented (Büring 2016; Féry & Samek-Lodovici 2006; Krifka 2008). This can be seen by comparing (15) above to (16).

(16) A: What did John's mother do?
B: She [praised BILL]$_F$.

In both (15) and (16), the VP is focused. VP-final objects in a focused VP are normally accented, as in (16) (Féry & Samek-Lodovici 2006). Yet when part of the focus is also given as in (15), this part (i.e. *John*) is deaccented.

1.4 Contextual salience

Both focus and givenness rely on the notion of contextual salience. I therefore discuss this notion as proposed by Büring (2016), building on Schwarzschild (1999), in some detail (Section 1.4.1). I then propose a refinement of the notion and introduce the definition of a CSM I will employ in the dissertation (Section 1.4.2).

1.4.1 Büring's (2016) notion of contextual salience

Büring (2016) elaborates on Schwarzschild's (1999) notion of contextual salience. Although a definition of salience is not offered by either author, it is clear that it covers more than the case of literal repetition as in *green apple ... apple* above. For instance, Schwarzschild mentions that the prior use of a hyponym can suffice, such as when previous mention of *gorilla* makes the expression *animal* GIVEN. Also, factors like the recency and frequency of use may affect what is salient.

Both Büring (2016) and Schwarzschild (1999) include in contextual salience cases of literal repetition (*green apple ... apple*), coreference (*Sinatra ... the singer*) and hyponymy (*gorilla ... animal*). Büring also mentions a case where general linguistic context makes an expression given, as in (17).

(17) A: The opposition want to impeach the president.
B: I HATE $[\text{politics}]_G$.

[Büring 2016: 18, ex. 2]

In this example, there is no specific element in the preceding utterance that would count as a CSM. Nonetheless, *politics* in (17) is given, as is indicated by deaccentuation.

Both Büring and Schwarzschild also discuss cases where additional background assumptions play a role, such as world knowledge or beliefs (18).

(18) A: They invited Woody Allen as their keynote speaker.
B: Yeah, they WANted a [New Yorker]$_G$.

[Büring 2016: 129, ex. 51; cf. Schwarzschild 1999: 153, ex. 29]

In speaker's B's utterance in (18), *New Yorker* can be deaccented as given because 'Woody Allen' is made salient by speaker A's utterance. Yet, '∃Q. [Woody Allen Q]' does not entail '∃Q. [New Yorker Q]' unless the speakers' world knowledge that Woody Allen is a New Yorker is somehow involved in the entailment relation. A similar case is presented in (19).

(19) (She called him a Republican, and then) HE insulted HER.

[Büring 2016: 128, ex. 50, who cites Lakoff 1968]

Here, the CSM that 'she called him a Republican' only entails '∃x∃y. [x insulted y]' if one takes for granted that calling someone a Republican constitutes an insult. Büring (2016: 128-131) observes that while world knowledge and beliefs can play an additional role, their exact role is hard to define.

Elaborating on Schwarzschild's notion, Büring notes that non-linguistic context can also make a meaning salient. This is shown in (20), in which the noun *dogs* has to be deaccented. Although not mentioned, the dog that walks into the room makes the concept 'dog' salient.

(20) During my visit to your house a dog walks into the room. I comment:

a. I thought you HATED [dogs]$_G$.
b. The building management doesn't ALLOW [dogs]$_G$.

[Büring 2016: 100, ex. 4]

Similarly, in (21), the non-linguistic context makes the concept 'smoking' salient.

(21) Seeing someone's new pack of cigarettes:

I thought you QUIT [smoking]$_G$.

[Büring 2016: 18, ex. 3]

The observation that non-linguistic context can make a meaning salient will play an important role later in the dissertation.

Büring (2016) does not describe what determines whether a meaning becomes salient for a speaker. We would probably not want to say that everything one sees at some level of consciousness becomes salient, like the cup of tea on your desk or the people outside your window. This is similar for linguistic context: if the radio is on while you are working but you are not really listening, the commercials that are broadcasted may not make anything salient for you. The dog walking into the room in (20) is more than an observation that takes place 'in the background'. When the dog walks in, it is more of an event that enters the speaker's consciousness. One might then say that the event in (21) is 'noticing a new pack of cigarettes', since if the speaker does not notice the pack of cigarettes, there is nothing to make 'smoking' salient for him/her. As it is not clear what exactly makes something salient for a speaker, contextual salience is somewhat of a slippery notion.

What Büring (2016: 100-103) does clarify is the difference between the notions of contextual salience and presupposition (a presupposition being a background belief that is mutually known or assumed by the interlocutors). It is true that salience and presupposition often coincide, since the assertion of a sentence often results in the sentence's content being added to the common beliefs of the interlocutors. In that case, the content of the sentence is both salient and presupposed. However, a presupposition does not have to be salient, nor vice versa.

A meaning is presupposed but not salient when a belief is shared, e.g. as a matter of world knowledge, but is unrelated to the discourse situation. For instance, in speaker B's utterance in (22), it is presupposed that 'the speaker's mother is a senator', cf. the factive verb *know*.

(22) A: The Burtletts don't want to see you.
B: Do they know my mother is a SEnator?
[Büring 2016: 101, ex. 8]

Yet, the current context does not make 'senator' salient. In line with this, there is no givenness deaccentuation of *senator*.

The opposite case, in which a meaning is salient but not presupposed, is exemplified in (23).

(23) A: What if the Johnsons show up?
B: I DOUBT they'll show up.
[Büring 2016: 100, ex. 6]

In speaker B's utterance in (23), it is not presupposed that 'the Johnsons will show up'. Speaker B in fact expresses that he/she doubts this. Still, 'the Johnsons showing up' is salient here because it has been mentioned by speaker A. This explains the givenness deaccentuation of *they'll show up*.

An additional argument to distinguish salience from presupposition is the fact that only a proposition, i.e. the meaning of a declarative sentence, may be presupposed. Yet, any type of constituent may be contextually salient, for instance through previous mention. Consequently, constituents of any size can get focal prominence or undergo givenness deaccentuation.

Summarising this section, Büring's (2016) notion of contextual salience, which elaborates on Schwarzschild (1999), includes literal mention or coreference, hyponymy, salience due to general linguistic context and salience due to non-linguistic context. It is clear that shared assumptions like world knowledge and beliefs may play an additional role in the entailment relation, but the way in which this works is not well understood.

1.4.2 A refinement of the notion of contextual salience

In the previous section, I discussed Büring's concept of contextual salience. In this section, I suggest a modification of this notion. It is clear

from the above that this will indirectly affect focus and in particular givenness. What I suggest is that contextual salience is better viewed as a subjective notion. This will explain the additional role of world knowledge and beliefs.

If a meaning, e.g. 'Sinatra', is salient in the context, for whom is it salient? It should at least be salient for the speaker, who consequently deaccents *the singer*. Does it have to be salient for the addressee as well? Consider what would happen if the addressee in (20) above was, for example, looking out of the window and did not notice the dog walking in. Upon hearing (20a) or (20b) with deaccentuation of *dogs*, the addressee might look around for the dog(s) he/she had apparently missed. In other words, the speaker can deaccent *dogs* if this does not happen to be salient for the addressee. Yet, the addressee is not irrelevant. In a situation where he/she clearly could not have seen the dog, as in a conversation on the phone, the accentuation pattern in (20) would be odd.[21] In that situation, the speaker should know that the presence of a dog at his/her side of the phone does not make the concept 'dog(s)' salient for the addressee. A speaker may not always be aware of whether or not a meaning is salient for an addressee. It takes at least attention to know whether something is salient for someone else, and in general, one cannot be sure about what is salient for another person. Still, while a CSM must be contextually salient for the speaker, the speaker should also not have reason to believe that it is not salient for the addressee.

This subjective view of contextual salience, i.e. as salient *for someone*, can explain the additional role of associations and beliefs. Consider again example (18), here repeated as (24).

(24) A: They invited Woody Allen as their keynote speaker.
B: Yeah, they WANted a [New Yorker]$_G$.

[Büring 2016: 129, ex. 51; cf. Schwarzschild 1999: 153, ex. 29]

[21] Not only the accentuation pattern but also the content of the utterance itself would be odd.

In (24), it is part of speaker B's active knowledge that Woody Allen is a New Yorker. For this speaker, Woody Allen being a New Yorker is a strong association that is made salient upon hearing *Woody Allen*. I suggest that in this example, the relevant CSM *as it is perceived by the speaker* is not exactly 'Woody Allen', but something like 'Woody Allen, who is a New Yorker'. Following existential type shifting, '∃Q. [Woody Allen, who is a New Yorker Q]' then entails '∃Q. [New Yorker Q]', which makes *New Yorker* given. This resolves Büring's problem as described in the previous section.

The prediction is then that the associations and beliefs that are involved in a CSM should be contextually salient for the speaker, while the speaker should not have reason to believe that they are not salient for the addressee. This prediction seems to be born out. For speaker B's deaccentuation of *New Yorker* in (24), it is not necessary that Woody Allen being a New Yorker is also salient for speaker A. Speaker B may not be thinking very much about whether or not speaker A knows this fact. Yet, if a speaker knows that the addressee does not have the association, the deaccentuation is strange. This is illustrated in (24'), a revised version of (24).

(24') A: They invited Stefan Glasbergen as their keynote speaker.
B: Yeah, they WANted [someone from Leiden]$_G$.

Speaker B could use this accentuation pattern if I am the addressee, as I am very aware that Stefan Glasbergen is from Leiden, since he is my husband. Yet, speaker B would not do so if she knows that the addressee will not have the association.

Another example is (19), here repeated as (25).

(25) (She called him a Republican, and then) HE insulted HER.

[Büring 2016: 128, ex. 50, who cites Lakoff 1968]

One can assume that for the (fanatical Democrat) speaker of (25), the beginning of the utterance makes salient something like 'she called him a Republican and I consider that an insult'. As this makes 'someone

insulting someone' salient, it licenses the foci in (25). Obviously, the beginning of the utterance would not make the same thing salient for all speakers. Yet the speaker can utter the sentence with this accentuation pattern without knowing the political views of the addressee; he is merely expressing his own. Still, the accentuation pattern does convey the message that the speaker expects the addressee to share these views, and if not, that he should.

So the view of contextual salience as a subjective notion explains why world knowledge and beliefs may play an additional role in focus and givenness, which was not clear before (Section 1.4.1). It also makes it easy to see why general linguistic context can make a concept salient, as in (17), repeated as (26).

(26) A: The opposition want to impeach the president.
B: I HATE [politics]$_G$.

[Büring 2016: 18, ex. 2]

Speaker A's utterance does not contain a particular expression that would count as a CSM for *politics*. Yet, on a subjective view of contextual salience, it is likely that the concept 'politics' becomes salient for speaker B upon hearing A's utterance. The case of hyponymy may be seen in the same light. When a speaker hears *gorilla*, what may become salient for him/her is 'the animal gorilla', i.e., including the world knowledge that gorillas are animals. This is not so different from the case of 'Woody Allen, who is a New Yorker' (24), where world knowledge also contributes the relevant property.

Consequently, the definition of a CSM that I will employ in this dissertation is the one in (27).

(27) *Contextually Salient Meaning* (*CSM*) – *my definition*
A meaning is a CSM if it is perceived by the speaker as contextually salient and the speaker has no reason to believe that it is not salient for the addressee.

As the precise content of a CSM can be affected by associations and beliefs, it may in some cases vary depending on the person and the precise context involved. I mentioned in Section 1.4.1 above that Büring's (2016) concept of contextual salience is somewhat of a slippery notion. My modification in (27) only adds to this. Yet, in Chapters 5 and 6, it will be exactly this vagueness that is necessary to account for the data. In particular, I will argue that the notions of contextual salience and givenness are important to understand the observed data variation regarding intervention effects.

2 Echo versus information seeking questions

In Section 1, I discussed focus and givenness, two notions of information structure that I will use to explain certain aspects of the data variation found for French *wh*-in-situ questions. I now turn to the other angle from which I study French *wh*-in-situ questions, namely the distinction between echo and information seeking questions (i.e. non-echoic questions). I first introduce echo questions and explain why the echo/information seeking distinction should be included in the study of French *wh*-in-situ questions (Section 2.1). The remainder of the section provides background information on echo questions and shows that they differ form information seeking questions regarding their syntactic (Section 2.2), semantico-pragmatic (Section 2.3) and prosodic properties (Section 2.4).

2.1 Introduction

The core property of echo questions is that they 'echo' the previous utterance (I will make this more precise below). The examples in (28) and (29) illustrate two types of echo questions that are commonly distinguished (Bartels 1997; Pope 1976). Example (28) displays an echo question that expresses a failure to perceive or understand part of the previous utterance.

(28) A: John bought #####[noise].
B: John bought WHAT? (I did not hear you.)

Example (29) shows the type that is used to express an emotion in the spectrum of surprise, disbelief or outrage regarding part of the previous utterance.[22] This second type is only a question to some degree, as it can be answered by a confirmation ('Yes, that's right') as well as a repetition of part of the previous utterance ('a Porsche') (Artstein 2002).

(29) A: John bought a Porsche.
B: John bought WHAT? (No way.)

In French, a *wh*-in-situ question may be either an echo question or an information seeking question. This is illustrated by (30) (an echo question) and (31) (an information seeking question).

(30) A: Jean a invité #####[noise].
Jean has invited
'Jean invited #####[noise].'

B: Jean a invité qui ?
Jean has invited who
'Jean invited who? (I did not hear you.)' (echo question)

(31) Jean a invité qui ?
Jean has invited who
'Who did Jean invite?' (information seeking question)

The examples in (30) and (31) show that the two types of questions may be string-identical in French.

[22] The term 'echo question' is used in a broader sense in Marga Reis' work, where it contains all questions with *wh*-in-situ word order in German, including those that do not echo a previous utterance. I discuss this latter type of *wh*-in-situ question extensively in Chapter 6.

Yet, it will become clear below that the properties of echo and information seeking questions are different. Moreover, there are some areas in which French *wh*-in-situ questions display data variation and part of the data shares the relevant property with echo questions. In order to clarify the properties of French *wh*-in-situ questions, it is therefore necessary to distinguish explicitly between the two question types.

In what follows, I provide an overview of the areas in which the two types of questions differ and the echo/information seeking distinction may help to clarify the data.

2.2 Syntactic properties

From a syntactic point of view, the most obvious property of echo questions is the fact that their *wh*-phrase can be left in-situ in many languages that front the *wh*-phrase in information seeking questions (i.e. *John bought what?* versus *What did John buy?*) (Artstein 2002; Reis 1992). There are many other syntactic differences between the two question types.

For instance, echo questions can take non-standard forms as in (33), or even as in (34), using the *wh*-phrase to replace parts of the sentence that a *wh*-phrase cannot replace in an information seeking question (Bolinger 1987; Cooper 1983; Janda 1985).

(33) A: John bought a #####[noise].
B: John bought a WHAT? (I did not hear you.)

(34) Bill is a WHAT-dontist?

[Artstein 2002: 103, ex. 28]

In information seeking questions, such forms are infelicitous whether the *wh*-phrase is fronted (35a) or in-situ in a multiple question (35b).

(35) a. *A what did John buy? (information seeking)
b. *Who bought a what? (information seeking)

Another feature of echo questions is that they are infelicitous as indirect questions (36) (Ginzburg & Sag 2000; Sobin 2010).[23]

(36) a. *We wondered [Dana saw WHAT]. (echo)
b. We wondered [what Dana saw]. (information seeking)
[Ginzburg & Sag 2000: 271, ex. 40a]

As was discussed in Chapter 2, French *wh*-in-situ questions are also infelicitous as indirect questions.

Also, in several languages in which *wh*-in-situ questions display intervention effects, these effects are absent in echo questions (Engdahl 2006; Poschmann 2015: 107-113; Reis 2012). Recall that intervention effects were discussed in Chapter 2 as a topic in which the data displays much variation.

So while the syntactic properties of echo and information seeking questions differ, some properties of echo questions may be shared by (part of the)information seeking French *wh*-in-situ questions.

2.3 Semantico-pragmatic properties

I now turn to the semantico-pragmatic properties, under the heading of which I discuss the core pragmatic property of echo questions, a semantics that reflects this property, the relation between an echo question and the utterance it 'echoes' and the information structure of echo questions.

Starting with the core pragmatic property, the use of an echo rather than an information seeking question signals that the speaker of the echo question does not yet accept a previous discourse move (Biezma 2018; Engdahl 2006; Ginzburg & Sag 2000; Poschmann 2015). In the case of an echo question expressing auditory failure, the speaker of the echo

[23] This is different in echo questions with more than one *wh*-phrase, in which one *wh*-phrase has moved to the Spec CP of the indirect question as in (i), which are felicitous.

(i) A: He wondered when Mary saw #####[noise].
B: He wondered when Mary saw WHAT?

question did not understand or perceive part of the previous utterance, and is therefore not yet in a position to accept it. In the case of an echo question expressing surprise, the speaker is surprised by part of the previous utterance or does not believe it, and hence refuses to accept it for that reason. So an echo question raises a question regarding an aspect of the previous utterance, which gives rise to the 'echoing' character.

To some extent following Engdahl (2006) among others, I assume a semantics for echo questions in which this difference with information seeking questions is reflected. As already mentioned, the denotation of an information seeking *wh*-question is generally taken to be the set of propositions that constitute possible answers to it, as depicted in (37) (Hamblin 1973).

(37) *Information seeking* wh-*question*
[[What did John buy?]] = {John bought a book,
John bought a coffee,
John bought a house, . . . }

The meaning of an echo question like *John bought WHAT?* can be paraphrased as in (38) (e.g. Engdahl 2006; Ginzburg & Sag 2000).

(38) What did you say/assert (just now) that John bought?

Its meaning can therefore be analysed as expressing the potential content of the preceding utterance, as in (39).

(39) Wh-*echo question*
[[John bought what?]] =

answer: you said that John bought [a book] or
you said that John bought [a coffee] or
you said that John bought [a house] etc.

I will explain in Chapter 6 that I do not consider these potential answers to be a set of alternative propositions, as the referent for the *wh*-phrase

has already been fixed by the preceding utterance (see also Section 5 of Chapter 5).

Due to their pragmatics there is a close relation between an echo question and the utterance it 'echoes'. Some authors assume that the wording of an echo question must copy the wording of the previous utterance (Sobin 2010). This is however not the case: the relation between an echo question and its preceding utterance can be far more loose (Beck & Reis 2018; Blakemore 1994; Noh 1998; Reis 2012). For instance, an echo question may employ different wording than the preceding utterance (40).[24] Moreover, 'the president' and 'Mr Clinton' are not semantically equivalent, as pointed out by Blakemore (1994).

(40) A: Mr Clinton will be speaking tonight.
B: The president will be speaking WHEN?

[Blakemore 1994: 208, ex. 36]

Moreover, Reis (2012) shows that no single word in the echo question need be the same as in the preceding utterance (41).

(41) A: Hat Lisa schon etwas darüber gesagt,
wie es ihrem Sohn am MIT gefällt?
'Has Lisa already said something about how her son likes MIT?'

B: Tom studiert jetzt WO?
'Tom is now studying WHERE?'

[Reis 2012: 5, ex. 11]

Note that the connection between the utterances in (41) relies a lot on the background knowledge of the echo question speaker.

Turning to the information structure of echo questions, it has often been noted that echo questions always have a narrow focus on the *wh*-word, as is illustrated in (42) (Artstein 2002; Bartels 1997; Jacobs 1991; Reis 2012).

[24] This example could also receive a non-echoic interpretation.

(42) A: John bought #####[noise] book.
B: John bought WHICH book? (I did not hear you.)

Only the *wh*-word *which* is focused in this example, as the whole non-*wh* part of the question is 'echoed' from the previous utterance. If it is true that information seeking *wh*-in-situ questions allow for different focus structures, depending on the context, the two types of question differ in the focus structures they allow.

Summarising this section, the semantico-pragmatic properties of echo questions clearly distinguish them from information seeking questions. Echo questions raise a question regarding an aspect of the utterance they echo. The wording of an echo question does not have to copy the wording of the previous utterance. Unlike information seeking questions, echo questions always have a narrow focus on the *wh*-word.

2.4 Prosodic properties

The final area of grammar I discuss is prosody. There have been prosodic comparisons between echo and *wh*-in-situ information seeking questions in several languages. This section provides a brief overview, focussing on the type of echo question that expresses auditory failure. Echo questions expressing surprise involve an additional issue, which is that the emotion of surprise itself can also affect the prosody of speech utterances (Hirschberg & Ward 1992).

Although the prosody of echo questions expressing auditory failure differs cross-linguistically, it seems to be distinct from the prosody of information seeking questions in most languages for which this has been investigated. The following, tentative, generalisation seems to hold within the small sample of languages for which I found relevant descriptions:

(A) In languages in which *wh*-in-situ information seeking questions are uttered with a falling intonation, echo questions display a sentence-final rise.

(B) In languages in which *wh*-in-situ information seeking questions are uttered with a rising intonation, echo questions display an expanded pitch range in addition to a sentence-final rise.

Brazilian Portuguese (Kato 2013), Farsi (Esposito & Barjam 2007; Sadat-Tehrani 2011) and Manado Malay (Stoel 2007) are examples of pattern (A); pattern (B) is exemplified in North-Central Peninsular Spanish (González & Reglero 2018), Greek (Roussou et al. 2014) and Shingazidja, a Bantu language spoken on Comoros (Patin 2011). German also follows pattern (B), but the difference between the question types is very small (Repp & Rosin 2015), possibly because information seeking *wh*-in-situ is restricted in this language (Poschmann 2015; see also Chapter 6). Mandarin Chinese seems to be the only language for which the two types of question have been compared, but no distinct prosody for echo questions expressing auditory failure was consistently found (Hu 2002).

In short, echo questions have been shown to be prosodically distinct from information seeking questions in several languages. In a subset of these, echo questions are distinguished from information seeking questions by a sentence-final rise. Recall that the presence of a sentence-final rise is also a much debated claim regarding French *wh*-in-situ information seeking questions (Chapter 2). Involving the echo/information seeking distinction in the study of French *wh*-in-situ questions may therefore clarify their prosodic properties.

3 Conclusions

As discussed in Chapter 1, this dissertation investigates the properties of French *wh*-in-situ questions from two angles, both of which relate to context: information structure and the distinction between echo and information seeking questions. In this chapter, I provided background information on these notions and motivated certain aspects of the approach adopted in this dissertation.

While it is often assumed that the *wh*-phrase equals the focus in *wh*-questions, irrespective of the preceding context, I re-examined the arguments for this view, and concluded that none of them are clear arguments against the assumptions put forward in Chapter 1. Following Jacobs (1984; 1991), Beyssade (2006) and Eckardt (2007), I argued that in certain languages, the focus in *wh*-questions may differ depending on the context, as in declaratives. Based on the behaviour of *wh*-fronting questions, one of these languages is French (Beyssade 2006; Beyssade et al. 2007).

The chapter specified the notions of focus and givenness I will use, as well as the concept of contextual salience, on which focus and in particular givenness rely. Regarding contextual salience, I proposed a refinement of Büring's (2016) concept, suggesting that it should be treated as a subjective notion. This accounts for the additional role of world knowledge and beliefs in focus and givenness. I show in Chapter 4 that focus affects the prosody of French *wh*-in-situ questions and explains an important aspect of the observed data variation. Givenness will play an important role in Chapters 5 and 6, where I show that this notion is crucial for our understanding of the data variation regarding several properties of French *wh*-in-situ questions, such as intervention effects.

In addition, although French *wh*-in-situ questions may be string-identical to echo questions, they exhibit differences regarding their syntactic, semantico-pragmatic and prosodic properties, that is, in all components of the grammar. In this dissertation, I will therefore explicitly distinguish and compare these two question types.

Together with Chapter 2, this chapter forms the background to the rest of the dissertation. In what follows, I investigate the prosody of French *wh*-in-situ questions (Chapter 4) and the occurrence of intervention effects (Chapter 5), before arguing that French has in fact two different mechanisms to interpret (non-echoic) *wh*-in-situ (Chapter 6).