



Universiteit Utrecht

Dit is mijn scriptie, hè? / * toch? / * zeker?

Characterizing the differences between three Dutch confirmationalals

Liesje van der Linden
5725933

A Master's thesis for the RMA Linguistics

Supervisors:

Prof. dr. Marjo van Koppen

Prof. dr. Ted Sanders

Abstract

In this thesis I report of an explorative study in which I investigated the usage and the restrictions on the usage of three Dutch confirmationalals (*hè*, *toch*, and *zeker*). In order to do so, I made use of a relatively new theory that is proposed by Wiltschko (to appear), which combines both insights from generative linguistics as well as functional linguistics to approach language in interaction. In light of this theory, I have characterized the difference between the three confirmationalals by using a three-fold method. In order to combine methodologies from both generative linguistics as well as functional linguistics, this method consisted of a corpus-analysis, the elicitation of native speaker judgements and a second corpus analysis. Based on the results of both the corpus analyses as well as the native speaker judgements elicitation, I have found that the difference between the three confirmationalals depends on whether the confirmationalal encodes the proposition upon which it follows as part of the Ground of the speaker, the addressee or both. That is, *hè* can be used to encode the proposition as part of the Ground of both the speaker and the addressee, *toch* can only be used to encode the proposition as part of the Ground of the speaker, and *zeker* can only be used to encode the proposition as part of the Ground of the addressee.

Table of contents

1. Introduction	4
2. Grammaticalization of speech acts and interactional language.....	5
2.1 The syntacticization of speech acts	6
2.2 Adding interactionality to the syntacticization of speech acts.....	8
3. A syntactic theory of interactional language	9
3.1 Universal Spine Hypothesis (USH) and Interactional Spine Hypothesis (ISH).....	9
3.2 Confirmationals and the ISH	11
4. Variation of confirmationals	14
5. The Dutch Confirmationals <i>hè</i> , <i>toch</i> , and <i>zeker</i>	18
6. Method	19
6.1 First corpus investigation.....	20
6.2 Native speaker judgement elicitation	21
6.2.1 Participants.....	21
6.2.2 Materials.....	22
6.2.3 Procedure.....	22
6.3 Second corpus investigation	23
7. Results	23
7.1 Results of the first corpus investigation.....	23
7.2 Results of the native speaker judgement elicitation	27
7.2.1 Introductory conversation board.....	28
7.2.2 Speaker has truth authority.....	28
7.2.3 Addressee has truth authority, belief placed in speaker ground during conversation.....	29
7.2.4 Addressee has truth authority, belief placed in speaker ground before conversation.....	30
7.2.5 Evaluative statements	31
7.2.6 Overall results	32
7.3 Results of the second corpus investigation.....	33
8. Analysis of Dutch confirmationals.....	35
8.1 ‘ <i>Hè</i> ’	35
8.2 ‘ <i>Toch</i> ’	37
8.3 ‘ <i>Zeker</i> ’	40
9. Discussion	42
10. Conclusion.....	42
References	44
Appendix	45

1. Introduction

In Dutch, the particles *hè*, *toch* and *zeker* can be used at the end of a sentence in order to transform a declarative sentence into a question. When these particles are used in this way, the speaker indicates that they have a certain belief and want to request confirmation from the addressee about whether this belief is correct. Take for example the sentence in (1) into account. Here, the speaker expresses that they believe that the addressee has a new dog while in the meantime requesting confirmation from the addressee about whether this belief is true or not.

- (1) Je hebt een nieuwe hond, *hè?* / *toch?* / *zeker?*
You have a new dog CONF
You have a new dog, eh? / *right?* / *huh?*

According to Wiltschko (to appear), a particle that functions in this way, is called a *confirmational*. Such confirmationals can be used as a window for studying language in interaction since an utterance that contains a confirmational can be seen as the initiation of an interaction between two interlocutors (Wiltschko, to appear). After all, the speaker clearly directs his utterance towards the addressee and equally expects a response from the addressee as well. This is what Wiltschko (to appear) refers to as the difference between ‘just saying something and telling someone’, or in other words: language in interaction.

In her monograph on interactional language (Wiltschko, to appear), Wiltschko aims to resolve the gap between linguistic traditions which focus on the form of language (generative linguistics) and linguistic traditions that focus on the communicative function of language (functional linguistics). This is because she proposes that units of language which are generally interpreted as functional communicative elements of language, also have their own formal properties and are derived through grammar. For this reason, Wiltschko proposes a syntactic theory of language in interaction which can account for the usage of such communicative units of language that encode interactionality, such as confirmationals. Wiltschko refers to this theory as the *Interactional Spine Hypothesis* (ISH).

Taking a step back and looking at the sentence in (1) again, native speakers of Dutch will notice that, although all confirmationals at the end of the sentence fulfil the same function of expressing a belief and requesting confirmation, each confirmational also causes a slight difference in interpretation. In order to characterize this difference in interpretation caused by the different confirmationals, I will use the ISH as proposed by Wiltschko (to appear) to account for these differences.

Since such a characterization of Dutch confirmationals has not yet been attempted thus far, the research that is reported in this thesis is explorative in nature. I aim to form hypotheses about the differences between the confirmationals, rather than testing hypotheses. Inspired by the work of Wiltschko (to appear), I will combine methodologies from both generative linguistic traditions as well as functional linguistic traditions, in order to form such hypotheses. The methodology of this research will therefore be three-fold and will consist of a corpus analysis, elicitation of native speaker judgements, and another corpus analysis. In the first corpus analysis, I aim to establish the lay of the land and explore in what ways the confirmationals are used. In the following native speaker judgement elicitation, I aim to retrieve negative data which can give insights in the restrictions on the usage of the confirmationals. Lastly, I will test the hypotheses based on the insights of the native speaker judgements in the second corpus analysis, in order to see whether they are also reflected in naturalistic data.

Based on the insights about the usage of and the restrictions on the confirmational that are gained through this threefold method, I will form a characterization of the differences between them by using Wiltschko's ISH (to appear), as mentioned above. That is, according to Wiltschko's theory, confirmational can encode whether the proposition upon which the confirmational follows is part of the background knowledge of the speaker, the addressee or both. In other words: whether it is established in their (common) Ground (Stalnaker, 2002). I will propose that the differences between *hè*, *toch* and *zeker* are caused by their different abilities to encode whether the proposition is part of the Ground of the speaker the addressee or both. Particularly, I hypothesize that *hè* can be used to encode the proposition as part of the Ground of both the speaker and the addressee, *toch* can only be used to encode the proposition as part of the Ground of the speaker, and *zeker* can only be used to encode the proposition as part of the Ground of the addressee.

Before coming to this conclusion, I will firstly explain more about the idea behind Wiltschko's theory of interactional language in chapter 2, elaborate on how the theory works in chapter 3, and how the theory can be used to analyse the usage of different confirmational in chapter 4. In chapter 5, I will subsequently review some of the sparse literature specifically on *hè*, *toch*, and *zeker*, before further elaborating on the method of the current research in chapter 6. In chapter 7 the results of this study will be presented, followed by my analysis of these results in chapter 8, and a discussion and conclusion in chapter 9 and 10.

2. *Grammaticalization of speech acts and interactional language*

There are two main aspects of language: the way it is used to establish our thoughts about the world, and the way it is used to communicate these thoughts about the world. This distinction has also caused a dichotomy in the study of language (Wiltschko, to appear). In some traditions the object of study is the form of language, whereas other traditions study the communicative function of language. Roughly, the dichotomy can be characterised as the distinction between generative linguistics and functional linguistics. Generative linguists focus on the human competence for language as they assume language to be a computational system (grammar), and native speaker judgements are used to investigate this system. Functional linguists on the other hand, focus on the communicative function of language as they assume language to be a means for communication. In the latter tradition, the distinction between competence and performance is less important, and thus naturalistic data is used to explore language use. According to Wiltschko (to appear), such a dichotomy in the study of language is not legitimate and she suggests that it can be overcome by assuming that communicative aspects of language are also configured by the same computational system as propositions are, namely in grammar. Wiltschko therefore proposes a theory which allows for interactional language, a functional component of language, to be viewed as derived by grammar. In this way, units of language (UoL's) which regulate communicative interaction become part of syntactic structure. In order to create such a syntactic theory which encompasses communicative interaction, Wiltschko (to appear) combines two different ideas, namely the syntacticization of speech acts and the development of speech act theory into a dynamic theory of interaction. Classic speech act theory introduces the differentiation between what is being said (i.e. the locutionary act), what is being intended (the illocutionary act), and what is being affected in the addressee (the perlocutionary act). A broad body of literature has already been

dedicated to the syntacticization of speech acts, however, most of these approaches disregard the interactional dimension of speech acts. This is because speech act theory has recently developed into a dynamic theory of interaction, whilst theories on the syntacticization of speech acts still reflect the absence of interactionality as in classic speech act theory. Wiltschko (to appear) therefore argues that insights from recent developments in other linguistic traditions should be taken into account when creating a syntactic theory which encompasses language in interaction. For this reason, the current chapter will contain a brief discussion of speech acts, how previous research has attempted to syntacticize speech acts, what is lacking in such theories, and what elements should crucially be added for a syntactic theory that incorporates interactionality to be adequate.

2.1 *The syntacticization of speech acts*

The origin of speech act theory dates back to Austin (1962) who argued that when we say things we also do things (Wiltschko, to appear). Before then, the role of context did not receive much attention in linguistic – mainly structuralist – traditions. The realization that most language use goes beyond making statements that are either true or false changed this, and is at the base of classic speech act theory (Wiltschko, to appear). Performative acts (e.g. baptisms or declarations of ownership) are the clearest examples of doing something through an utterance as the action coincides with the utterance. Declarative sentences can however also be seen as doing something through an utterance, as the speaker then tells something to their interlocutor with the intention to change their beliefs. Thus, any utterance can be seen as a speech act if a distinction is made between what is being said (i.e. the locutionary act), what is being intended by the speaker (the illocutionary act), and what is being affected in the addressee (the perlocutionary act).

Research which explores the syntactic underpinnings of such speech acts is based on the core idea that the function of the speech act is in part derivable from sentence form. Therefore, instead of considering illocutionary force to be outside of the sentence structure, the syntacticization of speech acts is based on the assumption that illocutionary force is embedded within the sentence structure. In this way, illocutionary force – and thus speech acts – become part of the unit of analysis for syntax, which is the sentence. The propositional structure is therefore extended to include speech act structure (Wiltschko, to appear).

The original version of this idea was developed by Ross (1970) and was called the *performative hypothesis* (Wiltschko, to appear). Under this hypothesis it is assumed that a structure which consists of a subject referring to the speaker, a performative verb which indicates the illocutionary force, and an indirect object referring to the addressee, dominates the propositional structure. So, for the sentence in (2), the propositional clause is preceded by a performative clause as in (3). This performative clause can either be spelled out or not, but according to Ross (1970) and Sadock (1969) the structure is present even when it is not overtly encoded in the utterance. Therefore, both sentence (2) and sentence (3) can be viewed as performative.

- (2) The sun is shining
- (3) [performative clause I tell you that [propositional clause the sun is shining]]

However, this initiation of the performative hypothesis received much criticism, which caused the proposal to be abandoned. The criticism concerned, amongst other things, the criteria to

classify speech acts (as the communicative intention of the speaker was left out), the way the theory heavily relied on performative verbs, and the problem of infinite regress (the possibility of infinitely adding layers that encode the illocutionary force of the utterance) (Wiltschko, to appear).

Since the performative hypothesis was first introduced, considerable developments occurred in syntactic theory. The emergence of functional architecture as well as the inclusion of contextual information in syntactic structure, allowed for new and improved versions of the performative hypothesis to be created. Wiltschko (to appear) refers to such work as the *neo-performative hypothesis*. Within this hypothesis it is suggested that there is a speech act structure which dominates the propositional structure and is not part of the articulated CP (Speas & Tenny, 2003). Such speech act structures resemble Ross' analysis as it consists of three arguments: the speaker, the utterance content, and the hearer. It is however not a full clause as Ross' (1970) suggested. This new version of the performative hypothesis resolves some of the critique to the original version. For example, the problem of infinite regress is resolved as the speech act structure in this analysis is part of the functional architecture in which recursive application is prevented. Functional categories such as CP, TP, and thus speech act structure, are not subject to the problem of infinite regress for this reason (Wiltschko, to appear). Still, other problems such as the communicative intention of the speaker being left out in the classification of speech acts, remain and even new problems arise (Wiltschko, to appear).

One of the main problems which accompany the neo-performative proposals is that the perlocutionary act is often ignored (Wiltschko, to appear). Even though the intention of the speaker (the illocutionary act) is represented within the functional speech act structure, what is being affected in the addressee (the perlocutionary act) is left out. According to Wiltschko, there are units of language that encode what the speaker wants the addressee to do with the utterance, and thus representation of perlocution in speech act structure is necessary. This implicates that speech act structure cannot be treated as a primitive but may be decomposed. Which leads to another problem with neo-performative hypotheses according to Wiltschko (to appear). That is, if speech acts are complex and cannot be seen as primitives, then the term 'speech act phrase' should not be used as a label. As there are many different labels used by different scholars, and there are no specific criteria on how to determine a label, the field is in need of a principled way to determine such labels.

Wiltschko (to appear) aims to resolve these problems by proposing a new approach for the syntacticization of speech acts, which she calls the *Interactional Spine Hypothesis* (ISH). Firstly, to represent both the illocutionary act as well as the perlocutionary act in this new speech act structure, Wiltschko (to appear) incorporates notions from other frameworks into her syntactic analysis of speech acts. In order to determine which notions should be taken into account in the creation of a syntactic model of speech acts, she reviews several models from different linguistic traditions that take the interactional dimension into account. Secondly, the problem of labelling functional categories is resolved in the interactional spine hypothesis as it is based on the *Universal Spine Hypothesis* (USH) (Wiltschko, 2014) which provides a principled way to determine the labels of functional categories.

In the following section (2.2) I will briefly discuss the relevant notions regarding interactionality from different frameworks which Wiltschko (to appear) incorporates in her analysis of speech acts before elaborating on both the USH and the ISH in chapter 3.

2.2 Adding interactionality to the syntacticization of speech acts

In order to ascertain what elements need to be addressed for a syntactic theory of speech acts to include perlocution as well, Wiltschko (to appear) reviews several analyses of interactional language. This includes analyses from both functional and formal traditions, both dialogue-based frameworks as well as grammar-based frameworks. In the current chapter I will discuss the most important insights that resulted from Wiltschko's review.

The common ground generally refers to that what is presupposed or assumed as background information amongst the participants in a conversation (Stalnaker, 2002). According to Wiltschko (to appear), analyses from different linguistic traditions show that updates to the common ground are more complex than as assumed in neo-performative hypotheses. In both the performative hypothesis as suggested by Ross (1970), as well as in the neo-performative hypothesis (for example in the work by Speas and Tenny (2003)), it is assumed that the common ground is automatically updated when an utterance is directed to the addressee. However, in actual conversation the situation is more complex as the success of a speech act is dependent on the response of the addressee (Clark & Brennan, 1991). Only through what is called 'the process of grounding' can the common ground be updated by an utterance. Clark and Brennan (1991) explain this process by suggesting that a grounding criterion must be met: both the speaker and the addressee must mutually agree that it is understood what the speaker meant well enough for current purposes. In this way grounding reflects the collective attribute of communication since communication requires the coordinated action of all participants.

On a similar note, Farkas and Bruce (2010) present a more fine-grained model of the process of updating the common ground by introducing a notion which they call *the Table*. The Table provides an intermediate step in the process of grounding as utterances are first 'put on the Table'. They then project a future common ground, which can become added to the actual common ground once a response from the addressee is obtained and the issue is removed from the table. In this way the items on the Table keep track of what is 'at issue' in the conversation. As soon as there is an item on the table, the goal of the conversation is to resolve the issue and empty the Table (Farkas & Bruce, 2010). Farkas and Bruce (2010) suggest that items are put on the Table in the form of a stack. This representation of the items on the Table as a stack allows for the distinction between initiating and responding conversational moves, as an item can be added to the stack or removed from the stack. Only when there are no more items left in the stack on the Table, a conversation comes to a natural end.

As this complex process of grounding is not yet represented in syntactic theories of interactional language, Wiltschko (to appear) aims to incorporate it in her approach. This is done by the addition of a ground layer (GroundP) which can be split into the ground of the speaker and the ground of the addressee. The necessity of a response from the addressee is represented through a separate responding layer (RespP), in which items can be put in what Wiltschko calls 'the response' set of the interlocutor, which reflects the notion of the Table as introduced by Farkas and Bruce (2010). In the following chapter I will further elaborate on Wiltschko's approach by explaining the Universal Spine Hypothesis (Wiltschko, 2014) and the Interactional Spine Hypothesis (Wiltschko, to appear).

3. A syntactic theory of interactional language

Wiltschko (to appear) argues that traditional sentence-structure (propositional structure) is embedded within structure dedicated to language in interaction: an interactional spine. In this chapter I will review the *Interactional Spine Hypothesis* (ISH) (Wiltschko, to appear), and the *Universal Spine Hypothesis* (USH) (Wiltschko, 2014) on which the ISH is based. Subsequently, I will elaborate on how confirmationals can be analysed by using the ISH.

3.1 Universal Spine Hypothesis (USH) and Interactional Spine Hypothesis (ISH)

The Interactional Spine Hypothesis (ISH) (Wiltschko, to appear) is based on the Universal Spine Hypothesis (USH) (Wiltschko, 2014) which is a new way to model the relation between the form, meaning and distribution of units of language. In this section I will elaborate on both hypotheses in order to create a clear sketch of the framework in which the current thesis is placed.

According to the USH, there exists a universal spine independently of the units of language that associate with it (Wiltschko, 2014). This assumption differs from the traditional Universal Grammar (UG) assumption (Chomsky, 1965), which suggests that a sentence is build up out of functional categories which are the same for each language. Since findings by typologists seem to contradict the existence of such universal categories (newly investigated languages give rise to extraordinary examples which hardly fit in the existing categories), the USH instead argues that functional categories are constructed on a language specific basis (Wiltschko & Heim, 2016). The construction of such language specific categories however does involve the universal spine, as the combination of the universal spine and a language specific unit of language together form a grammatical category. The universal spine can thus be viewed as a universal categorizer, as it is at the base of the construction of categories (Wiltschko, 2014).

Wiltschko (2014) assumes that the universal spine hierarchically consists of four layers, each with its own function which she refers to as the spinal functions (see figure 1). The lowest layer has the function of *classification* as this is where events and individuals are classified. The function of the second layer is *point-of-view* as a viewpoint relative to which the event or individual is presented is introduced by this layer. The following layer has the function of *anchoring* as it is responsible for anchoring the event or individual to the utterance. The fourth and final layer has the function of *discourse linking* as it establishes the relation between the proposition and the ongoing discourse (Wiltschko, 2014).

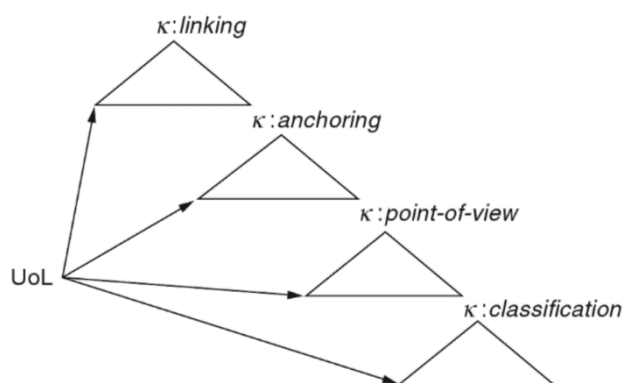


Figure 1: Hierarchical structure of the spinal functions (Wiltschko, 2014)

When units of language associate with the universal spine, they acquire the function of the area they are associated with. In this way, the combination of units of language and universal spinal

functions allow for functional categories to arise. For example, in English the anchoring and point-of-view functions are realised as the grammatical categories *tense* and *aspect*, whereas in Blackfoot anchoring and point-of-view functions are associated with *person*, but besides this difference the same core function is served (Wiltschko, to appear).

Although they differ in function, the layers of the universal spine are built up in the same manner. That is, each spinal head comes with a coincidence feature [*ucoin*] which relates the complement and the specifier to each other (Wiltschko, 2014). This coincidence feature can either be valued positive [+*coin*] or negative [-*coin*]. For instance, in the case of morphological past tense [*ucoin*] is valued negative in the anchoring layer as the event time does not coincide with the utterance time (Wiltschko, to appear). Thus, the content of a given unit of language serves to value the grammatical feature. It is in this way that the spinal function and the unit of language that associates with the head together form the grammatical category. A schematic representation of this can be seen in figure 2.

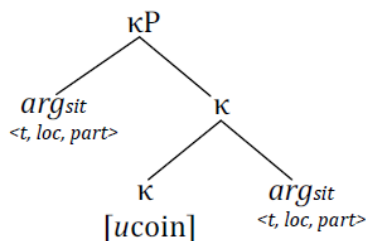


Figure 2: A layer of the universal spine where two arguments get related to each other (Wiltschko, to appear)

According to Wiltschko (to appear), the universal spine allows for comparison of categories in light of variation, a better determination of functional categories, and a way to deal with multifunctionality. For this reason she considers the USH to be an ideal framework to adopt for the analysis of interactional language.

The essence of the interactional spine hypothesis (ISH) is to extend the universal spine to configure interactional language as well. Based on reviewing multiple different frameworks, Wiltschko (to appear) suggests to extend the universal spine with two more functions: a *grounding* and a *responding* layer. In the grounding layer the utterance is related to a mental state. Wiltschko calls it: “the grammatical foundation for integrating thoughts about the world into our knowledge states” (Wiltschko, to appear). GroundP therefore has the propositional structure as its complement and the Ground (the mental representation of thoughts about the world) as its specifier. If this propositional structure and the Ground coincide, [*ucoin*] is valued positively, and the proposition is placed into the ground. The argument which is introduced by GroundP can thus be seen as the mental state of the interactant. When an utterance is embedded in the grounding structure, it not only encodes propositional content but it also adds a subjective component. That is, it asserts whether the propositional content is or is not asserted in the knowledge state of the interlocutor. Since both the addressee and the speaker have different grounds, Wiltschko proposes that GroundP should be split into an addressee-oriented Ground_{Adr}P and a speaker-oriented Ground_{Spkr}P, with the ground of the addressee dominating the speaker ground. For each of these grounds the coincidence feature can thus be valued separately.

The other layer with which the universal spine will be extended is the responding layer. The function of this layer is to represent turn-taking. It relates what is in the Ground to what is ‘on the Table’ (see Farkas & Bruce, 2010). In other words: it determines what should be

responded to, which Wiltschko (to appear) refers to as the *response set*. The complement of RespP is therefore GroundP and its specifier is the response set. In the case of a positive valuation of [ucoin], the embedded utterance is in the response set of the addressee indicating that a response is requested. When [ucoin] is valued negative, the utterance is not in the response set and therefore does not require a response of the interlocutor. The response set can also be indexed to the individual interlocutors, defining the difference between initiating and reactive moves. If the response set is indexed to the addressee, a positive valuation of [ucoin] indicates that the speaker requests a response and a negative valuation of [ucoin] indicates that no response is required. If the response set is indexed to the speaker, a positive valuation of [ucoin] indicates that the utterance is in the speaker's response set and thus is a reactive move, whereas a negative valuation of [ucoin] then indicates that the utterance is marked as a non-response. According to Wiltschko (to appear), does a minimal turn sequence consist of an initiating and a reactive move. Each move has one response layer (RespP) which is either addressee oriented (initiating move) or speaker oriented (reacting move). Figure 3 depicts the grounding and the responding layer.

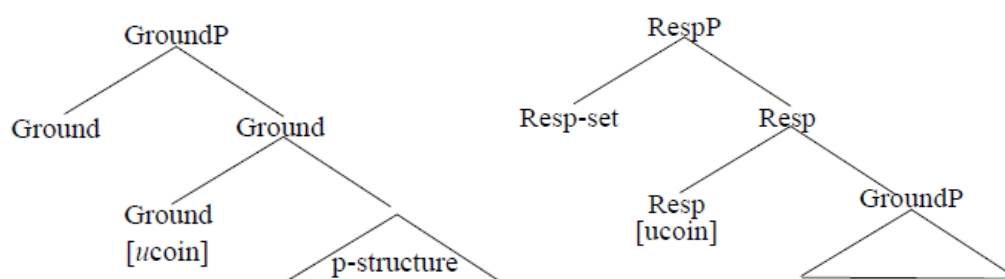


Figure 3: the Grounding and the responding layer (Wiltschko, to appear)

3.2 Confirmationalals and the ISH

Wiltschko (to appear) uses confirmationalals (such as Canadian *eh*, or the Dutch *hè*, *toch* and *zeker*) as a window to investigate interactional structure. This is because interaction minimally consists of an initiating and a reactive move, and confirmationalals can be seen as examples of initiating moves as they request a response from the interlocutor. When a confirmational is used at the end of an utterance, typically the speaker stops their turn and leaves room for the interlocutor to start their turn and respond. Consider the example in (4). Without the confirmational, the utterance would be a static declarative, but by the addition of the confirmational *toch* at the end, it turns into a question.

- (4) Je gaat binnenkort verhuizen, *toch*?
 You go-2sg soon moving CONF
You will be moving soon, right?

The confirmational indicates the speaker's propositional attitude since it expresses that the speaker believes the proposition to be true to a certain extent, and the confirmational also signals that the speaker requests confirmation for this belief. This is in line with what Wiltschko (to appear) considers to be the two main functions of confirmationalals. That is: firstly, indicating the speaker's attitude towards the proposition (the speaker believes the proposition to be true), and secondly, signalling that the speaker requests a response (the speaker asks whether the

interlocutor can confirm whether the proposition is true).

A confirmational can thus be used when the addressee knows the truth value of the proposition ($\text{know}(p \vee \neg p)$), and the speaker does not know the truth value of the proposition, but believes it might be true ($\text{Bel}(p)$). For this reason, utterances containing a confirmational differ from regular assertions because when an assertion is made, the speaker knows the proposition to be true (p) and expects that the addressee does not to know ($--$) (Wiltschko, to appear). On the other hand, utterances containing a confirmational also differ from regular (polar) questions. That is, in the case of a question, the addressee knows the truth value of the proposition ($\text{know}(p \vee \neg p)$), and the speaker does not ($p \vee \neg p$) and has no attitude towards the truth of the proposition either. Wiltschko (to appear) therefore suggests that confirmational are used when neither the normal course for assertions, nor the normal course for questions holds. The table in figure 4 provides an overview of the normal courses for assertions, questions, and confirmational, in which S conveys the knowledge state of the speaker and A the knowledge state of the addressee.

	Knowledge states	
	S	A
Assertion	p	$--$
Polar question	$p \vee \neg p$	$\text{know}(p \vee \neg p)$
Confirmational	$\text{Bel}(p)$	$\text{know}(p \vee \neg p)$

Figure 4: knowledge states for assertion, questions and confirmational (Wiltschko, to appear)

Both the expression of propositional attitude ($\text{Bel}(p)$) and the request for confirmation can be related to the interactional spine as sketched in the previous section. Specifically, the expression of propositional attitude (the indication that the speaker believes the proposition to be true) can be related to the grounding layer (GroundP) whereas the request for confirmation can be related to the responding layer (RespP) (Wiltschko, to appear). Utterances containing a confirmational, like the utterance in (4), differ from bare declaratives since they put the propositional attitude of the speaker on the table, instead of the proposition itself. For this reason, Wiltschko (to appear) argues that the grounding layer indexed to the speaker ($\text{Ground}_{\text{Spkr}}$) is involved. The confirmational, *toch*, values the coincidence feature in $\text{Ground}_{\text{Spkr}}$ positive which asserts that the proposition is in the speaker's ground. In this way the relation to the proposition becomes subjective, and the propositional attitude of the speaker can be put on the table. Figure 5 shows how *toch* values the coincidence feature in $\text{Ground}_{\text{Spkr}}$ positive. Contrary to this positive valuation as caused by a confirmational, a negative valuation of [*ucoin*] in $\text{Ground}_{\text{Spkr}}$ can be used to indicate disbelief, and in some languages it can be used to indicate that a belief is new¹.

¹ I elaborate on the latter in chapter 4

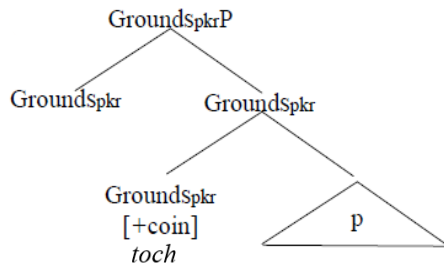


Figure 5: the confirmational *toch* asserts a proposition in the speaker's ground.
(adapted figure based on Wiltschko (to appear))

Now that the proposition is placed in the speaker's ground, the propositional attitude can be put on the table. Wiltschko (to appear) suggests that this is done by a positive valuation of the coincidence feature in the responding layer. Since (4) can be viewed as an initiating move as opposed to a reacting move, the responding layer is in this case indexed to the addressee (Resp_{Adr}). The valuation of [+coin] in Resp_{Adr} is realised by the rising intonation with which the confirmational is associated (Wiltschko, to appear). The complement of RespP, which is GroundP, is then placed into the addressee's response set, or in other words: the speaker's belief is put on the table. If no response is requested, [-coin] will be valued negative for Resp_{Adr}. In figure 6 it is shown how the confirmational values the coincidence feature in the grounding layer and the intonation of the confirmational values the coincidence feature in the responding layer.

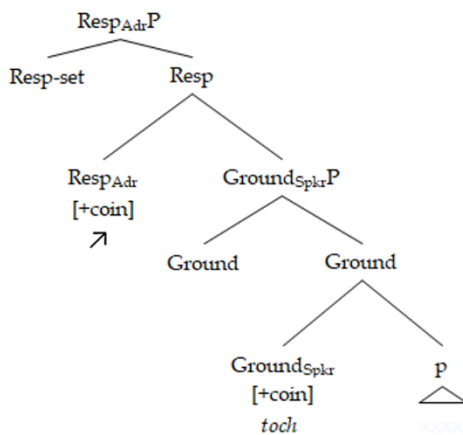


Figure 6: the confirmational asserts the proposition in the ground of the speaker and the intonation asserts the propositional attitude in the response set.

Aside from requesting confirmation from the addressee for the speaker's belief, confirmational can also be used to request confirmation for a belief of the addressee. Compare for example the sentence in (4) with the sentence in (5). Because the speaker is assumed to know whether they will move or not, it is in this case not the belief of the speaker which is put on the table, but the belief of the addressee which is.

- (5) Ik ga binnenkort verhuizen, hè?
I go-1sg soon moving CONF
I will be moving soon, you know?

Therefore, $\text{GroundP}_{\text{Spkr}}$ gets valued [+coin], as the speaker knows that the proposition is true, and the ground indexed to the addressee, $\text{Ground}_{\text{Adr}}$, is also valued [+coin] since the speaker assumes that the addressee knows but is not yet sure about this. If the intonation values the coincidence feature in Resp_{Adr} as positive as well, the propositional attitude of the addressee can be put on the table. The speaker then does not request confirmation for the truth of the proposition, but instead requests confirmation from the interlocutor to whether they share the same believe.

4. Variation of confirmationalals

Using the interactional spine, the framework sketched by Wiltschko (to appear) allows for comparison of different types and uses of confirmationalals. As the previous chapter has introduced the general analysis of confirmationalals in relation to the interactional spine, the current chapter will discuss how confirmationalals can vary within the analysis.

One way in which confirmationalals can vary was already addressed in the previous chapter. Namely, the difference between putting the belief of the speaker or the belief of the addressee on the table. When the belief of the speaker is put on the table, the confirmational must associate with $\text{Ground}_{\text{Spkr}}$, whereas if the belief of the addressee is put on the table, the confirmational may associate with both $\text{Ground}_{\text{Spkr}}$ and $\text{Ground}_{\text{Adr}}$ as well, or only with $\text{Ground}_{\text{Adr}}$. According to Wiltschko (to appear) this difference is related to whether the speaker or the addressee has authority over the truth of the proposition. For example, if the addressee has authority over the truth of a proposition (p), the addressee knows what the truth value is of p . It therefore makes sense for the speaker to request confirmation from the addressee about the truth of p when they assume the speaker to have this authority. On the other hand, if the speaker has authority over the truth, it does not make sense for the speaker to request confirmation about the truth of p from the addressee, and thus a reading as in (5) arises.

Although some confirmationalals can be used to trigger both the reading as in (4) and the reading as in (5) (e.g. Canadian *eh*), not all confirmationalals can. There are confirmationalals which are restricted to association with either $\text{Ground}_{\text{Spkr}}$ or $\text{Ground}_{\text{Adr}}$, but cannot be associated with both (Wiltschko, to appear). For example consider the contrast between (6) and (7).

- (6) You have a new dog, *huh*?
 (7) *I have a new dog, *huh*?

In (6) the speaker assumes the addressee to have authority over the truth, in which case the confirmational *huh* is appropriate. In (7), on the other hand, the speaker has authority over the truth and the addition of *huh* is therefore infelicitous. Because the coincidence feature in $\text{Ground}_{\text{Spkr}}$ must be valued positive when the speaker has authority over the truth of the proposition, the infelicity of *huh* in (7) indicates that *huh* cannot be used when the coincidence feature of $\text{Ground}_{\text{Spkr}}$ must be valued [+coin]. Therefore, Wiltschko (to appear) concludes that *huh* may only associate with and value the coincidence feature of $\text{Ground}_{\text{Adr}}$, and not the coincidence feature of $\text{Ground}_{\text{Spkr}}$. In figure 7 is depicted how *huh* values [*u*coin] for $\text{Ground}_{\text{Adr}}$ and does not do so for $\text{Ground}_{\text{Spkr}}$.

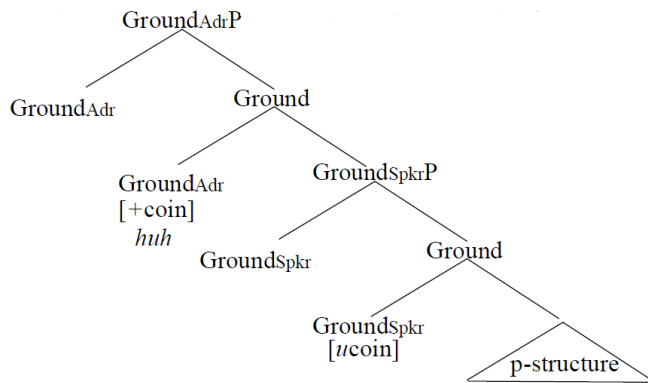


Figure 7: *huh* assigns the value [+coin] to Ground_{Adr}, asserting the proposition into the ground of the addressee. (Wiltschko, to appear)

When a confirmational is added to an evaluative statement, neither the speaker nor the addressee has authority over the truth. Wiltschko (to appear) suggests that the confirmational then associates with both Ground_{Spkr} and Ground_{Adr}, since the belief of the speaker is expressed and it is asked whether the addressee shares this belief. For example in the context of (8) an evaluative statement can be expressed.

- (8) [A and B watch a movie together. A liked the movie and utters:]
- a. That was a good movie, *eh*?
 - b. *That was a good movie, *huh*?

In the situation in (8) the speaker expresses that they liked the movie (association with Ground_{Spkr}) and asks whether the addressee shares this opinion (association with Ground_{Adr}). To comply with this situation, a confirmational therefore needs to associate with and value both Grounds as is depicted in figure 8.

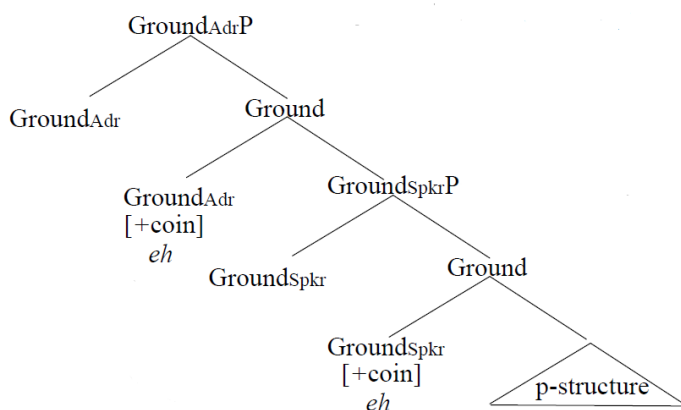


Figure 8: The confirmational assigns the value [+coin] to both Ground_{Spkr} and Ground_{Adr}, asserting the proposition into both grounds. (Wiltschko, to appear)

As Ground_{Spkr} must receive the value [+coin] to state that the proposition is in the speaker's ground, the infelicity of *huh* in (8b) shows again that *huh* may not be used to render a positive valuation of [ucoin] for Ground_{Spkr}. However, when the context is adjusted so that the

proposition is no longer in the speaker's ground, and thus no [+coin] value is needed for $\text{Ground}_{\text{Spkr}}$, *huh* is no longer infelicitous, see for example (9).

- (9) [B watched a movie by their selves. As B seems really happy afterwards, A asks:]
- a. That was a good movie, *eh*?
 - b. That was good movie, *huh*?

Because the speaker has not seen the movie in the situation in (9), the proposition that movie was good is not in their ground. The confirmational is therefore only used to request confirmation about whether the addressee beliefs the proposition, and not to express that the speaker already does. In this case the structure as presented in figure 7 is present for both sentence (9a) containing *eh*, as well as sentence (9b) containing *huh*. Therefore, *eh* appears to be a multifunctional confirmational that is able to value $\text{Ground}_{\text{Spk}}$ and $\text{Ground}_{\text{Adr}}$ both separate from each other as well as at the same time, whereas *huh* does not carry this multifunctionality.

So, one way in which confirmational can vary depends on whether they can associate with $\text{Ground}_{\text{Spkr}}$, $\text{Ground}_{\text{Adr}}$, or both. Another way in which confirmational can vary is whether the confirmational is sensitive to the timing of when the belief is established in the ground. In some languages are confirmational sensitive to the timing of when the belief is established in the ground. For example in Austrian German *geu* is used if the belief is established at a time before the conversation, whereas *leicht* is used if the belief is established in the ground during the conversation.

Since this contrast does not occur in English, Wiltschko (to appear) argues that Austrian German and English differ in how the positively valued coincidence feature is interpreted. She suggests that if a language has no sensitivity to the timing of belief, like English, then the valuation [+coin] is added to Ground for both new and old beliefs. However, if a language does have sensitivity to the timing of belief, the valuation [+ coin] is restricted to old believes, as these are already part of the ground, whilst the valuation [-coin] is restricted to new beliefs. So for example consider the contrast between the situations in (10) and (11).

- (10) [A has not seen B in a while and is therefore unaware of that B has acquired a new dog. When A runs into B who is walking their new dog, A utters:]
- a. You have a new dog, *eh*?
 - b. *Du host ein neichn Hund, *geu* ?
You have-2sg a new dog CONF
 - c. Du host *leicht* ein neichn Hund ?
You have-2sg PRT a new dog (Wiltschko, to appear)

- (11) [A has previously heard from a mutual friend that B has acquired a new dog. When A runs into B who is walking their new dog, A utters:]
- a. You have a new dog, *eh*?
 - b. Du host ein neichn Hund, *geu* ?
You have-2sg a new dog CONF
 - c. *Du host *leicht* ein neichn Hund ?
You have-2sg PRT a new dog (Wiltschko, to appear)

The main difference between the situations in (10) and (11) is that the belief of the proposition is only recently added to the speaker’s ground in the situation in (10), whereas it has already been established in the speaker’s ground before the conversation took place in the situation in (11). Whilst the Canadian English confirmational *eh* is felicitous in both situations, the Austrian German confirmational *geu* is only felicitous in the second situation. In (11) a sentence-internal discourse particle *leicht* can be used instead of the confirmational (Wiltschko, to appear). The confirmational *geu* is therefore only able to value [*u*coin] positive for $\text{Ground}_{\text{Spkr}}$ if the belief has already been placed in the speaker’s ground before the conversation takes place. This is because newly formed beliefs are not considered to be part of $\text{Ground}_{\text{Spkr}}$ in a language that is sensitive to the timing of grounding (Wiltschko, to appear). For such languages, the structure as depicted on the left in figure 9 is present when a confirmational is used to express a newly formed belief, and the structure on the right is present when the belief is already established in the speaker’s ground prior to the conversation.

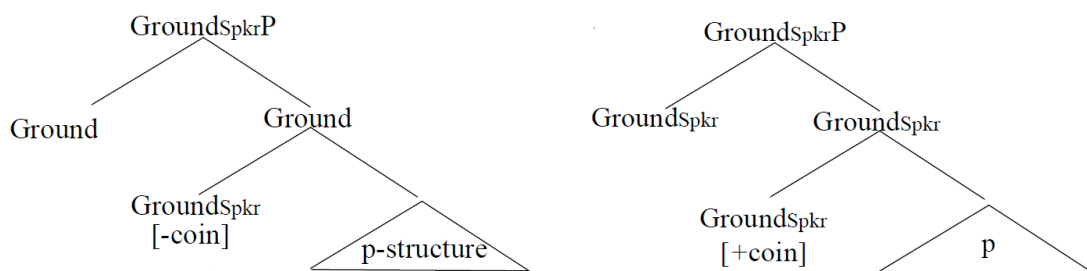


Figure 9: Structure of $\text{Ground}_{\text{SpkrP}}$ for new and old beliefs.

Finally, another way in which confirmational can differ is that in some languages confirmational can be sensitive to the strength of the belief (Wiltschko, to appear). For example in Mandarin Chinese the confirmational *ba* conveys a strong positive bias (the speaker is almost certain of the truth of the proposition), the confirmational *dui bu dui* conveys a neither positive nor negative bias, and the confirmational *hai* conveys a negative bias towards the truth of the proposition (Yang & Wiltschko, 2016). Consider for example the difference between the three situations in (12).

(12)

- a. [John lives around the corner from a bakery. Every morning when he goes to work he sees people buying bread at 9 am. One day he goes to buy some bread himself at 9.30 when the baker says that they won’t open for another half hour.]
- b. [John is visiting a different town. He thinks that the bakery will open at 9 am in this town, but his sister says they open at 10. When they pass by a bakery, they ask for the opening hours.]
- c. [John knows that the bakery around the corner usually opens at 10 am. One day he John hears a rumour that the opening times of the bakery have changed to 9 am. However he remains sceptic as he can’t find confirmation on the website of the bakery and decides to ask the owner himself.]

The situation in (12a) conveys that John will be positively biased towards the truth of the proposition that ‘the bakery opens at 9am every day’, which allows for the confirmational *ba* to follow that proposition in Mandarin Chinese. In (12b) there is no clear bias towards the truth

of the proposition that ‘the bakery opens at 9am every day’, which allows for the usage of *dui bu dui* in Mandarin. And in (12c) John has a negative bias towards the truth of the proposition, and therefore the confirmational *hai* can be used to follow the proposition in Mandarin (Yang & Wiltschko, 2016).

Wiltschko (to appear) argues that these different degrees of belief can be understood as deriving from differences in the valuation of the coincidence in the speaker’s Ground as well. That is, if the bias is positive [*ucoin*] is valued positive as well (see the structure on the left in figure 9), if the bias is negative [*ucoin*] is valued negative (see the structure on the right in figure 9), and if the bias is neither positive nor negative the coincidence feature in $\text{Grounds}_{\text{pr}}$ is not valued at all.

5. The Dutch confirmational *hè*, *toch*, and *zeker*

The Dutch confirmational have not yet been investigated from the current point of view: as forming a typology of confirmational using a syntactic theory. However the usage of these discourse particles has been previously investigated from the perspective of conversation analysis. Especially the contrast between *hè* and *toch* as a sentence final particle has received particular attention. In the current chapter I will discuss some of the existing literature on these discourse particles regarding their usage as confirmational.

Enfield, Brown and De Ruiter (2009) have investigated sentence-final particles (SFPs) which can mark a question. They suggest that a language typically has a closed set of FSPs which can be distinguished from each other based on their communicative functions. These distinctions between the communicative functions are determined by quite fine distinctions in semantic meaning (Enfield et al., 2009).

In their investigation of SFPs, Enfield et al. (2009) took into account multiple languages, one of which is Dutch. The three Dutch confirmational *hè*, *toch* and *zeker*, which are central in this thesis, are considered by Enfield et al. (2009) as Dutch FSPs along with e.g. *nietwaar* (isn’t it ture), *niet* (isn’t it), and *ja* (yes). Since they report that *hè* and *toch* are the most common FSPs in Dutch, Enfield et al. restrict their focus to these two particles in particular. The results of their (spoken) corpus study indicate that *hè* is by far the most frequent as it occurred 14 times as often as *toch* in their data. Furthermore, based on the results of their corpus study, Enfield et al. (2009) suggest that the difference between *hè* and *toch* can be related to the difference between factual and evaluative statements. *Toch* supposedly requests confirmation for factual information, whereas *hè* does so for more evaluative statements. To illustrate this difference, they explicate the contrast between the following examples:

- (13)
- | | | | | | |
|----|------|-----|----------------|--------------|------------------------|
| a. | Wat | een | rotweer | <i>hè?</i> | |
| | What | a | shitty weather | CONF | |
| b. | Wat | een | rotweer | <i>toch?</i> | |
| | What | a | shitty weather | CONF | (Enfield et al., 2009) |

In this case, Enfield et al. (2009) suggest that *hè* is used in (13a) to request confirmation for whether the addressee agrees with the speaker’s assessment that the weather is bad, which they

label as an evaluative statement. They suggest that *toch*, on the other hand, is used in (13b) to enquire whether the weather is indeed factually bad. Based on these assumptions, Enfield et al. (2009) conclude that both *hè* and *toch* elicit agreement, but that the nature of what this agreement is requested for, differs. *Hè* requests agreement for an evaluative stance, whereas *toch* requests agreement on a factual base (Enfield et al., 2009).

The work by Foolen (1994) offers a different perspective, in particular a different explanation of the meaning of *toch*. To determine the meaning of *toch*, Foolen (1994) adopts the assumption by Elffers (1992) that *toch* usually conveys persistence, as a the proposition in which *toch* is added is persistently maintained, despite of what takes place in the referential area. However, Foolen (1994) does suggest that this notion of persistence can be made more precise as he considers the persistence meaning of *toch* to be part of a trichotomy. This trichotomy consists of a speaker having an opinion, the addressee disagreeing with this opinion, and the speaker maintaining the opinion anyway (*toch*). The speaker therefore always returns to their original standpoint by using *toch* (Foolen, 1994). Furthermore, Foolen (1994) suggests that when *toch* is used as an SFP (or confirmational) in order to form a question, the negation part of the trichotomy (p; not p; p), seems to be dependent on the addressee. That is, despite the behaviour of the addressee, the speaker persistently remains with their previous opinion and presents it once again to the addressee in the form of a question.

Based on the latter usage of the trichotomy of *toch* as suggested by Foolen (1994), Seuren (2020) suggests in an online column that the difference between the particles *hè* and *toch* at the end of a sentence, can also be related to this trichotomy. That is, a speaker will use *hè* when agreement is expected from the interlocutor and *toch* when there still remains doubt about whether the interlocutor will agree (Seuren, 2020). He also considers the classification made by Enfield et al. (2009) as extraordinary because different literature, such as Foolen et al. (1994), explicitly report of examples of *toch* as a sentence final particle of evaluative sentences.

Nevertheless, I would like to propose that this does not necessarily exclude the reasoning of Enfield et al. (2009). That is, Enfield et al. (2009) do not deny the occurrence of *toch* following evaluative statements, but only state that it requests agreement on a factual base rather than on an evaluative base. Therefore, I argue that the two perspectives are able to coexist. Consider for example the contrast between (13a) and (13b) again. When agreement is requested on a factual base as in (13b), the speaker does not yet have reason to belief that the addressee will agree since the speaker assumes that the addressee has truth authority and can therefore confirm whether the statement is true or not. Both the possibility that the statement is true, as well as the possibility that it is not, still exist. On the contrary, when agreement is requested for an evaluative statement as in (13a), neither the speaker nor the addressee have authority over the truth, and the speaker will therefore expect the addressee to agree with their statement based on their own opinion of the proposition.

6. Method

In the tradition of functional linguistics, discourse phenomena are mostly investigated by consulting corpora, whereas generative linguistics also obtain their data through the elicitation of native speaker judgements. As the current thesis aims to incorporate insights from both these traditions, the methodology consisted of a combination of both corpus analysis and native speaker judgements, similar to the work of Wiltschko (to appear). Since corpus analysis and the collection of native speaker judgements are accompanied by different advantages, a combination of the two results in a more reliable method.

The main advantage of looking at corpus data is the high degree of naturalness of the data. Corpora contain actual spoken conversations which allows the language use in these data to be more naturalistic than constructed sentences. However, the disadvantage of solely looking at corpora is that no negative evidence can be obtained. For example if a linguistic phenomenon never occurs in a specific situation, it is hard to determine whether the phenomenon is really not allowed in such a situation, or whether the corpus simply does not contain any occurrences of it in that specific type of context. Fortunately, this problem can be accounted for by the collection of native speaker judgements. The main advantage of the collection of native speaker judgements is the possibility to collect negative data by presenting target sentences and requesting the judgement of a native speaker about the felicity of the sentence. Therefore, native speaker judgements can be used to rule out the possibility that a rare linguistic phenomenon which does not occur in the corpus, is mistakenly taken to not be allowed.

To gain both the advantages of using naturalistic corpus data and the advantages of using native speaker judgements, the method of the current thesis consists of three parts. Firstly, a corpus was consulted to help establish the lay of land. In other words: what does the usage of the Dutch confirmational in naturalistic settings tell us about their usage? Secondly, after generally establishing in what type of situations each confirmational is used in naturalistic spoken conversations, native speaker judgements were elicited in order to also retrieve negative data. This was done to confirm whether the non-occurrence of a confirmational in a specific context also means that usage of the confirmational is prohibited in this particular type of context. Based on the native speaker judgements of the confirmational, new hypotheses were formed about their usage. In the third and final part of the method, these hypotheses were tested against naturalistic corpus data in order to make sure that the judgements of native speakers is in accordance with the usage of confirmational in natural conversations. In the following subsections, the three components of this method will be explained in more detail.

6.1 First corpus investigation

In order to retrieve a first impression of how the Dutch confirmational *hè*, *toch*, and *zeker* are used in natural settings, the Corpus of Spoken Dutch (Corpus Gesproken Nederlands, CGN) was consulted (Oostdijk, 2000). The CGN contains a collection of 900 hours of contemporary Dutch as spoken by Dutch and Flemish speakers. From this corpus, 20 occurrences of each confirmational as uttered by Dutch speakers were collected and qualitatively analysed. In order to make sure that the data concerned naturalistic and unprepared speech without the possibility of editing, all occurrences were obtained from the collections containing spontaneous conversation, which was either face-to-face or by telephone. Both the face-to-face dialogues and telephone dialogues are spontaneous and informal. The speakers

already knew each other and were free to talk about any subject.

The occurrences of the confirmational were collected through an automatic search on the lemma's *hè*, *toch*, and *zeker* followed by a question mark. Any occurrences of the lemma's followed by a question mark that did not concern the usage of the lemma as a confirmational were not taken into account. For each instance of a confirmational, the sentence in which it occurred, the surrounding context consisting of approximately five previous and five following sentences, and the audio file of the context containing the confirmational, were collected.

Subsequently the usage of the confirmational was qualitatively analysed for criteria that were mostly based on insights gained from the relevant literature. These criteria concerned: the clause type of the proposition upon which the confirmational followed; the function of the confirmational in the context (expressing a belief, requesting confirmation, or both) which is based on the work of Wiltschko (to appear) (see section 3.2); the intonation with which the confirmational was phonetically realised (rising or non-rising intonation), also based on the work of Wiltschko (to appear) (see section 3.2); whether the proposition upon which the confirmational followed was factual or evaluative, which is based on the work by Enfield et al. (2009) and Seuren (2020) (see chapter 5); which of the interlocutors had authority over the truth of the proposition upon which the confirmational followed (the speaker, the addressee or neither of the two) which is based on the work of Wiltschko (to appear) (see chapter 4); the timing of when the belief of the speaker which is expressed by the confirmational is established in the speaker's ground (before the conversation takes place or during), also based on the work of Wiltschko (to appear) (see chapter 4); and whether the speaker who uttered the confirmational had reason to expect that the interlocutor would agree with their statement, which was based on the work of Foolen (1994) and Seuren (2020) (see chapter 5). These criteria were chosen because they might play part in the distinction between *hè*, *toch* and *zeker*, based on the insights gained from the literature reviewed in previous chapters and my own native speaker intuitions. The criterium of the strength of the belief of the speaker (see chapter 4), was not taken into account since my own native speaker intuition is that this criterium is irrelevant for the distinction between the Dutch confirmational.

To improve the reliability of the qualitative analysis of the occurrences of the confirmational, a second annotator was asked to review 35% of the occurrences as well. Unfortunately, not enough occurrences were investigated to allow for the computation of inter-annotator agreement because the current research is rather explorative and does not yet test any hypotheses. However, any inconsistency between the annotators was discussed until agreement was reached.

6.2 Native speaker judgement elicitation

6.2.1 Participants

A total of ten native speakers of Dutch, all within the age group of 22 to 26 years old, participated in the elicitation of native speaker judgements. The participants were all from the same age group in order to control for inter speaker variation due to age differences. However, since the current research is explorative, only a small amount of participants were tested, because of which inter speaker variation could not completely be avoided. For example, the participants differed in the places where they grew up within the Netherlands, but at the time of the elicitation almost all participants were living in Utrecht. Moreover, half of the participants

were female and the other half of the participants were male, and all of the participants received higher education at a Dutch academic university or a Dutch university for applied sciences.

6.2.2 *Materials*

Since the usage of confirmationals is extremely context-dependent, the materials for native speaker judgement elicitation did not solely consist of target sentences but also of conversation boards. These conversation boards are short comics containing a conversation between two or more speakers, and serve to represent a conversational context in which a confirmational could or could not be uttered. The usage of these conversation boards is based on the methodology of Wiltschko (to appear), and all comics which are used in the conversation boards are created for the work of Wiltschko (to appear) and retrieved from the website of the University of British Columbia². The original conversation boards were translated to Dutch and adapted in such a way that they depict the contexts that could be used to test the hypotheses which were established based on the first corpus investigation.

Through indicating the relevant knowledge states of the interlocutors, the context for using the Dutch confirmationals could be controlled using these conversation boards. The main elements for which the contexts were controlled were: whether the proposition upon which the confirmational has to follow is factual or evaluative; which of the interlocutors has authority over the truth of the proposition upon which the confirmational follows (the speaker, the addressee or neither of the two); and the timing of when the belief of the speaker which is expressed by the confirmational is established in the speaker's ground (before the conversation takes place or during). A total of ten different conversation boards were used in the current research to test the hypotheses. The conversation boards that were used can be found in appendix 1.

6.2.3 *Procedure*

The elicitation of native speaker judgements took place in person and with one participant at a time. During the elicitation, the participants were asked to read the conversation board aloud followed by one of the target sentences containing a confirmational. After doing so, the participants were asked to judge whether the target sentence could be used in the context depicted by the conversation board. This procedure was repeated for each of the target sentences of each conversation board. After all three target sentences were judged by the participant, a meta-linguistic conversation took place per conversation board, as the participants were asked if they could elaborate on why some, all, or none of the target sentences fit into the context. The participants were also asked whether they could see the difference in usage between the different confirmationals, and which confirmational they would prefer to use in each context. The conversation boards were presented to each participant in a different order to make sure that the order in which the conversation boards were presented did not affect the results. Only the first presented conversation board was the same for each participant because it served as an introduction to the task and did not yet test any hypotheses.

² <https://syntaxofspeechacts.linguistics.ubc.ca/conversationboards/>

6.3 *Second corpus investigation*

Based upon the results of the native speaker judgement elicitation, new hypotheses were formed. To test these hypotheses, again the CGN corpus was consulted. Another 20 occurrences of the confirmationalals *hè*, *toch* and *zeker* were retrieved from the collections containing spontaneous conversation, which was either face-to-face or by telephone. This time the occurrences of the confirmationalals were qualitatively analysed based on less criteria in comparison to the first corpus investigation since some criteria resulted as irrelevant for the distinction between the confirmationalals during the first corpus investigation. The criteria which were taken into account in this corpus investigation concerned: whether the proposition upon which the confirmational has followed is factual or evaluative; which of the interlocutors had authority over the truth of the proposition upon which the confirmational followed (the speaker, the addressee or neither of the two); the timing of when the belief of the speaker which is expressed by the confirmational is established in the speaker's ground (before the conversation takes place or during); and whether there was notable reason for the speaker to expect the addressee to respond positively to (or agree with) their belief. Again, to improve the reliability of the qualitative analysis, a second annotator was asked to review 35% of the occurrences as well. Any inconsistency between the annotators was discussed until agreement was reached.

7. *Results*

7.1 *Results of the first corpus investigation*

Based on the literature that is reviewed in chapter 2 – 5, the 20 instances of the confirmationalals *hè*, *toch*, and *zeker* were analysed for the following criteria: the clause type of the proposition upon which the confirmational follows; the function of the confirmational in the context (expressing a belief, requesting confirmation, or both); the intonation with which the confirmational is phonetically realised (rising or non-rising intonation); whether the proposition upon which the confirmational followed is factual or evaluative; which of the interlocutors has authority over the truth of the proposition upon which the confirmational follows (the speaker, the addressee or neither of the two); the timing of when the belief of the speaker which is expressed by the confirmational is established in the speaker's ground (before the conversation takes place or during); and whether the speaker who uttered the confirmational expects that the interlocutor will agree with their statement. The results of this analysis are summarised in the table in figure 10.

		Hè	Toch	Zeker
Clause type	<i>Declarative</i>	20	19	20
	<i>Interrogative</i>	0	0	0
	<i>Imperative</i>	0	1	0
	<i>Exclamative</i>	0	0	0
Function	<i>Only expressing belief</i>	0	3	0
	<i>Only Requesting confirmation</i>	0	0	0
	<i>Both</i>	20	17	20
Intonation	<i>Rise</i>	20	17	3
	<i>No rise</i>	0	0	17
Factuality	<i>Factual statement</i>	12	14	20
	<i>Evaluative statement</i>	8	6	0
Truth authority	<i>Speaker</i>	10	1	0
	<i>Addressee</i>	2	10	19
	<i>Neither</i>	8	6	0
	<i>Unclear</i>	0	3	1
Timing	<i>Before</i>	10	8	0
	<i>During</i>	10	12	20
Expected agreement	<i>Clear reason</i>	16	3	2
	<i>No clear reason</i>	20	17	18

Figure 10: Results of the first corpus investigation.

Analysing the instances of the confirmationals for the clause type of the proposition showed that for all three confirmationals, the most occurring clause-type is the declarative clause. That is, for every instance of each confirmational the proposition with which it combined was a declarative clause (for example (14)), except for one instance of *toch* which combined with an imperative clause, see (15).

- (14) Ja, dat weet je *toch*?
 Yes that know you CONF
Yes, you know that, right?
- (15) Doe je *toch*?
 Do you CONF
Do that, right?

For each confirmational, the main function can be seen as expressing a belief and requesting confirmation for said belief. This is because all instances were interpreted by the annotators as fulfilling those two functions (see for example (16)), except for three instances of *toch* which seem to only express a belief without requesting confirmation (see (17) for example).

- (16) Die bedoel je *toch*?
 That mean you CONF
You mean that one, right?
- (17) [The addressee beliefs that somebody went to a specific store only to buy one item. The speaker knows that this is not the case, but that this person works at that specific store]
 Nee, maar hij werkt d'r *toch*.
 No but he works there CONF

Since both the clause-type of the proposition and the function of the confirmational appear not to be crucial for distinguishing the usage of the three Dutch confirmational, these elements will not be taken into account in the native speaker judgement task.

On the contrary, the intonation with which the confirmational were realised, differs per confirmational. All instances of *hè* are realised with a rising intonation, most instances of *toch* as well, and most instances of *zeker* are realised without a rising intonation. In the case of *zeker* only 3 of the 20 instances were realised with a rising intonation and 17 without. In the case of *toch* 17 out of 20 instances were realised with a rising intonation, and 3 instances, which are also the instances that express a belief but do not request confirmation, were realised with considerably less rise. Since the difference in intonation is difficult to examine in a native speaker judgement task, as the speakers have to read the context themselves, this criterium will not be taken into account in the elicitation of native speaker judgements.

Whether the proposition upon which the confirmational followed is factual or evaluative also differed per confirmational. Both *hè* and *toch* occurred after both factual and evaluative statements, whereas *zeker* only occurred after factual statements. *Toch* followed a factual statement 14 times, and an evaluative statement 6 times, and *hè* occurred 12 times following a factual statement and 8 times after an evaluative statement. Examples of *hè* and *toch* following evaluative statements are presented in (18) and (19), and an example of *zeker* following a factual statement can be seen in (20).

- (18) Ja, wat een gek *hè*?
 Yes what a crazy CONF
Yes, he's crazy, right?
- (19) [The addressee says that somebody apologized to them. Speaker:]
 Oh, nou netjes *toch*?
 Oh well clean CONF
Well, that's nice, right?
- (20) Ze hadden daar alles *zeker*?
 They had there everything CONF
They had everything there, huh?

Which of the interlocutors has authority over the truth of the proposition upon which the confirmational follows (the speaker, the addressee or neither of the two), also differs per confirmational. In the situations where *toch* is used, it is mostly the addressee who is expected to have authority over the truth over the propositions (10 times), except for the situations in which the proposition refers to an evaluative statement (6 times) in which case neither the addressee nor the speaker can have authority over the truth of the proposition. In 3 situations it was unclear who had authority over the truth, and only in 1 of the 20 instances of *toch* did the speaker have authority over the truth of the proposition (this was the sentence depicted in (17)). This is considerably different from *hè* which occurred 10 times after a proposition where the speaker has authority over its truth, 8 times after an evaluative proposition in which case neither the speaker nor the addressee can have truth authority, and 2 times in a situation in which the addressee has authority over the truth. The confirmational *zeker* showed the clearest preference as it combined with a proposition over which the addressee has truth authority in 19 out of 20 of the occurrences, and it remained unclear who had authority over the truth in 1 occurrence. Examples of *toch* and *zeker* in situations in which the addressee has authority over the truth,

can be seen in (21) and (22). The sentence in (23) contains an example of *hè* being used in a situation in which the speaker has authority over the truth.

- (21) [the addressee has told the speaker that somebody damaged their car. The speaker responds:]
 Forse beschadiging *toch?*
 Heavy damage CONF
- (22) [The addressee receives a text message. The speaker asks from who. Then the speaker asks:]
 Nancy, *zeker?*
 Nancy CONF
- (23) Vandaag heb ik maar weer gewerkt *hè?*
 Today have I but again worked CONF
Today I've just been working again, eh?

The timing of when the belief of the speaker which is expressed by the confirmational is established in the speaker's ground (before the conversation takes place or during), also seems to cause a distinction between the three confirmational. Both *hè* and *toch* can be used if the belief is established in the speaker's ground before the conversation takes place (this was the case for 8 occurrences of *toch*, and 10 occurrences of *hè*), as well as when the belief is established in the speaker's ground during the conversation (12 occurrences of *toch*, 10 occurrences of *hè*). For *zeker* it shows that it can only be used when the belief is established in the speaker's ground during the conversation, as this was the case for all instances of *zeker*. For example, in sentence (23) the belief is placed in the speaker's ground prior to the conversation, whereas it is established during the conversation in (24).

Lastly, whether the speaker who uttered the confirmational has reason to expect that the interlocutor will agree with their statement can also be seen as causing a distinction between the three Dutch confirmational. *Toch* and *zeker* are mainly used in situations where there is no clear reason for the speaker to expect that the interlocutor will agree with their belief (17 and 18 out of the 20 occurrences per confirmational). On the contrary, *hè* is mainly used in situations where there is a clear reason for the speaker to expect that the addressee will agree (16 out of 20 of the instances). Such reason to expect agreement consisted of the addressee directly indicating before the speaker's utterance that they believe *p*, or when the speaker has authority over the truth of the proposition expected agreement is implied. An example of a situation in which there is clear reason for the speaker to expect agreement from the addressee can be seen in (24).

- (24) [The addressee has told the speaker that he was at a birthday celebration which was quite awkward. The speaker responds:]
 Verjaardagen is altijd iets geforceerds *hè?*
 Birthdays are always something forced CONF

The results can be summarised per confirmational as follows. *Toch* can have the function of expressing a belief with or without requesting confirmation from the addressee for the belief. When it does not request confirmation but solely expresses a belief, it is phonetically realised without a rise in intonation. *Toch* is mostly used after propositions containing a factual statement over which the addressee has truth authority. It may also be used after a proposition

which denotes an evaluative statement in which case neither the speaker nor the addressee have authority over the truth of the proposition. The belief which *toch* expresses may both be placed in the speaker's ground before, as well as during the conversation, and *toch* is mostly used when there is no clear reason during the conversation for the speaker to expect that the addressee will agree. The confirmational *hè* can only function to both express the belief of the speaker and request confirmation for this belief. It is always realised with a rising intonation. *Hè* is mostly used when the speaker has authority over the truth of the proposition, but may also be used when the addressee is expected to have truth authority or when the proposition conveys an evaluative statement in which case neither the speaker nor the addressee can have authority over the truth of the proposition. The belief which *hè* expresses may both be placed in the speaker's ground before, as well as during the conversation, and when *hè* is used, it is likely that there is a clear reason for the speaker to expect that the addressee will agree with their belief. Similarly to *hè*, the confirmational *zeker* can only function to both express the belief of the speaker and request confirmation for this belief. It is however mostly phonetically realised without a rising intonation. *Zeker* is only used after propositions denoting a factual statement for which the addressee is expected to have authority over the truth. The belief expressed by *zeker* is always placed in the speaker's ground during the conversation, and there is mostly no clear reason for the speaker to expect that the interlocutor will agree with the statement. The table in figure 11 summarizes the overall results from the first corpus investigation.

	Factuality		Truth authority			Timing of belief		Expected agreement	
	Factual	Evaluative	Speaker	Addressee	Neither	Before	During	Expected	Not expected
<i>Hè</i>	yes	yes	yes	yes	yes	yes	yes	yes	no
<i>Toch</i>	yes	yes	no	yes	yes	yes	yes	no	yes
<i>Zeker</i>	yes	no	no	yes	no	no	yes	no	yes

Figure 11: Table containing a summary of the results from the first corpus investigation

7.2 Results of the native speaker judgement elicitation

Based on the results from the first corpus investigation, the following hypotheses³ were established for the native speaker judgement elicitation:

1. Only the confirmational *hè* can be used in a situation in which the speaker has authority over the truth of the proposition upon which the confirmational follows.
2. All three confirmational can be used when the speaker expects the addressee to have authority over the truth and the belief expressed by the confirmational is established in the speaker's ground during the conversation.
3. Only the confirmational *hè* and *toch* can be used when the speaker expects the addressee to have authority over the truth of the proposition and the belief is already established in the speaker's ground prior to the conversation.
4. Only *hè* and *zeker* can occur after a proposition that denotes an evaluative statement.

³ Because the expectation of agreement was difficult to manipulate in a conversation board, it was not implemented in the conversation boards directly and therefore no testable hypothesis was formed with regards to expected agreement. The expectation of agreement was however addressed during the meta linguistic conversations about the data (see section 7.2.6).

These hypotheses were tested by manipulating the conversational context through using different types of conversation boards. In the following subsections the results of the native speaker judgements elicitation, including the metalinguistic conversations, will be presented per hypothesis and its corresponding conversation boards. An overview of the different conversation boards can be found in appendix 1.

7.2.1 *Introductory conversation board*

The first conversation board that was presented to each participant served to introduce the task to the participants and did not yet test any of the hypotheses. The conversational context was manipulated in such a way that it would be odd to use any confirmational in the depicted situation (see appendix 1). This was done to familiarize the participants with indicating that some target sentences are not felicitous in some situations. The participants responded as expected to this conversation board and indicated that none of the three Dutch confirmationals can be used in this situation.

7.2.2 *Speaker has truth authority*

In order to test the hypothesis that only *hè* can be used in a situation in which the speaker has authority over the truth of the proposition upon which the confirmational follows, two conversation boards were manipulated to convey such a context. These were conversation boards 2 and 3 as depicted in appendix 1. The results of these conversation boards in the native speaker judgement elicitation are summarised in the table in figure 12.

		Hè	Toch	Zeker
Conversation board 2	<i>Accept</i>	4	0	0
	<i>Reject</i>	0	9	10
	<i>Unsure</i>	6	1	0
Conversation board 3	<i>Accept</i>	10	0	0
	<i>Reject</i>	0	10	10
	<i>Unsure</i>	0	0	0

Figure 12: Results of native speaker judgement elicitation, conversation board 2 and 3

For both conversation boards the participants unanimously responded that only *hè* can be used in such a situation in which the speaker has authority over the truth, and that *toch* and *zeker* are not felicitous. From the meta linguistic conversation resulted that the reason for *hè* being felicitous and the other confirmationals being infelicitous in these situations is that only *hè* can be used to form a rhetorical question for which the speaker already knows the answer. It results that *toch* and *zeker* cannot be used in such a way, because the participants confirm that by using these confirmationals the speaker would indicate that they do not know the answer to the question yet.

7.2.3 Addressee has truth authority, belief placed in speaker ground during conversation

To test the hypothesis that all three confirmationals can be used when the speaker expects the addressee to have authority over the truth and the belief expressed by the confirmational is established in the speaker's ground during the conversation, the fourth and fifth conversation board were manipulated to depict such a situation (see appendix 1). The results of the native speaker judgement elicitation using these conversation boards can be found in the table in figure 13.

		Hè	Toch	Zeker
Conversation board 4	<i>Accept</i>	7	0	10
	<i>Reject</i>	2	8	0
	<i>Unsure</i>	1	2	0
Conversation board 5	<i>Accept</i>	9	5	9
	<i>Reject</i>	0	2	1
	<i>Unsure</i>	1	3	0

Figure 13: Results of native speaker judgement elicitation, conversation board 4 and 5

The responses to conversation board 4 clearly showed that *toch* cannot be used in this situation since eight out of ten participants rejected the sentence containing *toch* and only two participants did not immediately reject it but doubted whether it was acceptable. The confirmationals *hè* and *zeker* do appear to be felicitous in this context. That is, seven out of ten participants thought the sentence containing *hè* was acceptable in this context, two participants thought it was not, and one participant doubted its acceptability. The preference seemed strongest for *zeker* in this context, as all participants considered the sentence containing *zeker* to be felicitous in this situation and eight out of ten participants said to prefer the sentence containing *zeker* over the sentence containing *hè*.

The responses to conversation board 5 were unfortunately less unanimous, which could be due to a flaw in the conversation board. Again the confirmationals *hè* and *zeker* were accepted, but the confirmational *toch* was not clearly rejected as it was for the previous conversation board. For both *hè* and *zeker*, nine out of ten participants considered the target sentence felicitous in the context. Five out of ten participants considered the sentence containing *toch* to be felicitous as well, two participants rejected this sentence, and the remaining three participants doubted its felicity.

That *toch* was less unanimously rejected for this conversation board could be due to misinterpretation of what was meant by the manipulation of the context. During the metalinguistic conversation it showed that most participants interpreted the first panel as if the belief is placed in the speaker's ground before the conversation takes place, whilst it was meant to depict that the belief is established in the speaker's ground during the time that the conversation takes place. Most participants noted that if the speaker has no previous knowledge prior to the conversation but instead the speaker bases their belief of the addressee having a new dog on the sight of the addressee with a dog, then *zeker* is the best confirmational to use, and *hè* and *toch* are not acceptable. This is because the participants indicated that *toch* cannot be used when the reason for the belief is visible (the new dog being present), and *hè* can only be used when the speaker already has some form of prior knowledge. The new hypothesis is therefore that only *zeker* is felicitous in a situation in which the speaker expects the addressee

to have authority over the truth of the proposition and the belief has not yet been placed in the speaker’s ground prior to the conversation.

7.2.4 Addressee has truth authority, belief placed in speaker ground before conversation

The hypothesis that only the confirmational *hè* and *toch* can be used when the speaker expects the addressee to have authority over the truth of the proposition and the belief is already established in the speaker’s ground prior to the conversation, was tested by the manipulation of conversation board 6 and 7 (see appendix 1). The results of the native speaker judgements elicitation using these conversation boards, can be found in the table in figure 14.

		Hè	Toch	Zeker
Conversation board 6	<i>Accept</i>	10	10	2
	<i>Reject</i>	0	0	3
	<i>Unsure</i>	0	0	5
Conversation board 7	<i>Accept</i>	10	10	0
	<i>Reject</i>	0	0	7
	<i>Unsure</i>	0	0	3

Figure 14: Results of native speaker judgement elicitation, conversation board 6 and 7

For both conversation boards, the participants confirm that the target sentences containing *hè* and *toch* are felicitous (ten out of ten participants), whereas there is more debate about *zeker*. For example, for conversation board 6, five out of ten participants considered the target sentence with *zeker* to be infelicitous, two participants accepted it, and three participants doubted its felicity. For conversation board 7, seven out of ten participants rejected the target sentence containing *zeker*, and the other three participants doubted its felicity.

The metalinguistic conversation with the participants showed that those who did not immediately reject the usage of *zeker* for these contexts, were able to interpret the conversation board as if the belief was established in the speakers ground during the time of the conversation. That is, for the situation in conversation board 6, they noted that the sentence with *zeker* could be felicitous if the belief that the addressee has started going to the gym was based on the addressee’s appearance (e.g. bigger muscles) instead of prior knowledge. For the situation in conversation board 7 some participants noted a similar effect, namely that the sentence with *zeker* could be felicitous if the belief that the addressee will be moving was based on the addressee’s appearance (e.g. carrying moving boxes) instead of prior knowledge. This seems to confirm the hypothesis that when the speaker expects the addressee to have authority over the truth of the proposition, *hè* and *toch* can be used if the belief of the speaker is based on prior knowledge (already established in the speaker’s ground before the conversation takes place), whereas *zeker* can be used when the belief of the speaker is based on what the speaker notices during the conversation (established in the speaker’s ground during the time of the conversation).

7.2.5 Evaluative statements

Conversation board 8, 9, and 10 were used to test the hypothesis that only *hè* and *zeker* can occur after a proposition that denotes an evaluative statement (see appendix 1). Conversation boards 8 and 9 purposely differed in context from conversation board 10 in order to see whether this difference influences the usage of the confirmational in combination with evaluative statements. In the situations in conversation board 8 and 9, the speaker has prior knowledge for the belief that was conveyed by the evaluative statement. That is, in both situations the speaker themselves has read or watched the book or movie as well as the addressee, and therefore the speaker can convey their own opinion by uttering the target sentence. In the situation depicted in conversation board 10 on the contrary, the speaker has not watched the movie themselves and therefore cannot convey their own opinion by uttering one of the target sentences containing a confirmational. The results of the native speaker judgements elicitation for these conversation boards can be found in the table in figure 15.

		Hè	Toch	Zeker
Conversation board 8	<i>Accept</i>	10	9	0
	<i>Reject</i>	0	0	9
	<i>Unsure</i>	0	1	1
Conversation board 9	<i>Accept</i>	10	4	0
	<i>Reject</i>	0	5	10
	<i>Unsure</i>	0	1	0
Conversation board 10	<i>Accept</i>	3	0	10
	<i>Reject</i>	7	8	0
	<i>Unsure</i>	0	2	0

Figure 15: Results of native speaker judgement elicitation, conversation board 8 – 10

For the situation in conversation board 8, the participants unanimously respond that the sentences containing *hè* and *toch* are felicitous and the sentence containing *zeker* is not. However, the situation in conversation board 9 leads to less unanimous responds. Although the sentence containing *hè* is again unanimously accepted by the participants, and the sentence containing *zeker* is unanimously rejected, there is more disagreement regarding the target sentence that contains *toch*. Five out of ten participants reject the sentence containing *toch*, four participants accept it, and one participant is in doubt about its felicity. During the metalinguistic conversation some participants that rejected *toch* indicated that it is odd to use this confirmational when the speaker has read the book themselves because it would convey too much insecurity. Instead they suggest that using *toch* would convey that the speaker did not read the book themselves, but that the speaker has previously heard that the book was good instead. Therefore, the target sentence containing *toch* can be used when the belief denoted by the proposition is in fact placed in the speaker's ground before the conversation takes place, but does not necessarily convey the speaker's own opinion.

For the situation in conversation board 10, in which the speaker has not seen the movie but the addressee has, the participants respond unanimously that the target sentence containing *toch* must be rejected and that the target sentence containing *zeker* can be accepted. Regarding the target sentence containing *hè* there is a little more disagreement as three participants accept the target sentence whereas the other seven participants reject it. Overall, the results from these

three conversation boards show that *zeker* can in fact be used after an evaluative statement, but only when the speaker has no previous knowledge regarding the statement but instead infers from the addressee’s reaction that the addressee must believe the proposition.

7.2.6 Overall results

Generally the results from the native speaker judgement elicitation can be characterized as follows. If the proposition upon which the confirmational follows is factual and the speaker has authority over the truth of this proposition, only the confirmational *hè* is felicitous. If the proposition upon which the confirmational follows is factual and the speaker expects the addressee to have authority over the truth of the proposition, the confirmational usage is dependent on the timing of when the belief is established in the speaker’s ground. That is, if the belief is not yet established in the speaker’s ground prior to the conversation, but instead is established in the speaker’s ground during the conversation, only the confirmational *zeker* is felicitous. If the belief is already established in the speaker’s ground prior to the conversation, both the confirmational *hè* as well as *toch* are felicitous.

If the proposition upon which the confirmational follows is an evaluative statement, the confirmational usage is also dependent on the speaker’s prior knowledge, and thus on when the belief is established in the speaker’s ground. That is, if the proposition is the speaker’s own opinion both the confirmational *hè* and *toch* seem felicitous. If the proposition is not the speaker’s own opinion but the speaker does have prior knowledge about the proposition being a common opinion, the confirmational *toch* is felicitous. Lastly, if the speaker has no previous knowledge about the proposition at all, meaning that it is neither their own opinion nor do they have knowledge about the proposition being a common opinion, then only the confirmational *zeker* is felicitous.

Furthermore, a general result from the metalinguistic conversations was that most participants indicated that the confirmational *toch* conveys more uncertainty than the confirmational *hè* does. Therefore, in situations where both *hè* and *toch* are felicitous, the participants indicated that *hè* can be used when the speaker expects that the addressee will respond positively to their confirmation request, whereas *toch* can be used when there is no clear reason to expect such a positive response from the addressee. Thus, even though the element of expected agreement was not accounted for in the manipulation of the conversation boards, its influence did come forward from the conversations with the participants about the data. A summary of the general results from the native speaker judgement elicitation including the metalinguistic conversations can be found in the table in figure 8.

		Belief is not yet in the speaker's ground	Belief is already in the speaker's ground	
			Speaker expects agreement	Speaker does not necessarily expect agreement
Factual proposition	Speaker has truth authority	*	<i>hè</i>	*
	Addressee has truth authority	<i>zeker</i>	<i>hè</i>	<i>toch</i>
Evaluative proposition	No truth authority	<i>zeker</i>	<i>hè</i>	<i>toch</i>

Figure 16: Summary of the results from the native speaker judgement elicitation

7.3 Results of the second corpus investigation

To test whether the results from the native speaker judgement elicitation comply with naturalistic the data, the results as presented in figure 8 were used as hypotheses for the second and final corpus investigation. The criteria that were taken into account in this corpus analysis therefore consisted of: whether the proposition upon which the confirmational follows is factual or evaluative; who has authority over the truth of the proposition (the speaker, the addressee or neither); whether the belief expressed by the proposition and confirmational is established in the speaker's ground before or during the conversation; and whether the speaker has reason to expect that the addressee will agree with their belief, or that no such reason is put forward in the context. The results of the second corpus analysis are summarised in the table in figure 17.

		Hè	Toch	Zeker
Factuality	<i>Factual statement</i>	13	18	20
	<i>Evaluative statement</i>	7	2	0
Truth authority	<i>Speaker</i>	6	0	0
	<i>Addressee</i>	7	18	20
	<i>Neither</i>	7	2	0
	<i>Unclear</i>	0	0	0
Timing	<i>Before</i>	20	19	0
	<i>During</i>	0	0	15
	<i>Unclear</i>	0	1	5
Expected agreement	<i>Clear reason</i>	14	0	1
	<i>No clear reason</i>	3	18	19
	<i>Unclear</i>	3	2	0

Figure 17: Results of the second corpus investigation.

The confirmational *toch* followed upon a factual proposition in eighteen out of twenty instances. In all these eighteen instances, the addressee had authority over the truth of the proposition, and in seventeen of these eighteen instances, the belief was already in the speaker's ground before the conversation took place, for example, see sentence (25). From these seventeen instances, it was clear in fifteen instances that there was no reason given in the previous context that the addressee would agree with the belief expressed by the speaker. In the other two instances it was debatable whether such reason might be present, see sentence (26). In the two instances in which *toch* followed upon an evaluative statement, the belief expressed by the confirmational was based upon prior knowledge and therefore already established in the speaker's ground before the conversation, see e.g. (27). The previous context also contained no clear reason for the speaker to expect agreement from the addressee.

- (25) [The addressee and the speaker discuss whether a group of people are employed at a store/business. The addressee says he thinks they are. The speaker responds:]
 Ja, ze lopen ook in uniform *toch*?
 Yes they walk also in uniform CONF
Yes, they also wear a uniform, right?
- (26) [The addressee and the speaker discuss a party they both attended. The addressee says that he didn't like the music that played. The speaker responds:]
 Ja, was alleen maar van die house-shit *toch*?
 Yes was only but off that house-shit CONF
Yes, it was only that shitty house music, right?

- (27) [The addressee and the speaker discuss a specific type of meal. The addressee says he doesn't like it very much. The speaker responds:]
 Is vrij droog, *toch?*
 Is quite dry CONF

The confirmational *hè* followed upon a factual proposition in thirteen out of the twenty instances. The speaker had authority over the truth of this proposition in six of these thirteen instances (e.g. (28)), and the addressee was expected to have authority over the truth in the remaining seven (e.g. (29)). In six of the seven instances in which the speaker expects the addressee to have authority over the truth of the proposition, the belief was already placed in the speaker's ground prior to the conversation. Only in one of these instances it seemed from the context as if the belief was placed in the speaker's ground during the conversation, see (30). In three of the seven instances in which the speaker expects the addressee to have authority over the truth of the factual proposition, it resulted from the context that there was clear reason for the speaker to expect that the addressee would agree with their belief (see for example (29) again). In the other four instances no such reason occurred explicitly in the context. In the seven instances in which the confirmational *hè* followed an evaluative statement, the belief was always established in the speakers ground prior to the conversation, see sentence (31). From these seven instances, it was in five instances clear from the context that there was reason for the speaker to assume that the addressee will agree with their belief (e.g. see (31) again). In the other two instances no such reason could be found explicitly in the context.

- (28) [The addressee has bought a new dress and describes it to the speaker. The speaker responds that they know that kind of dress and says:]
 Is heel erg in *hè?*
 Is very much in CONF
That's in fashion right now, eh?
- (29) [The speaker asks whether the addressee already knows about a specific story. The addressee responds that they do. The speaker utters:]
 Oh, dat had ik verteld *hè?*
 Oh that had I told CONF
Oh, I already told you that, eh?
- (30) [The speaker says that they don't recall the name of a village. The addressee says the name of the village. The speaker responds:]
 Ja, zie je, dat is natuurlijk Frans *hè?*
 Yes see you that is ofcourse French CONF
Yes, you see, that's French of course, eh?
- (31) [The addressee utters that they think something is fun. The speaker responds:]
 Leuk, *hè?*
 Nice CONF

In all of the twenty occurrences of the confirmational *zeker*, the confirmational followed upon a factual proposition over which the speaker expects the addressee to have truth authority. In fourteen of these twenty instances it became clear from the context that the belief expressed by the confirmational was established in the speaker's ground during the conversation, see for

example (32). In the other six of occurrences the timing of when the belief was established in the speaker's ground remained unclear. In most of the instances of *zeker* there was no clear reason visible in the context for the speaker to expect that the addressee will agree with their belief, only in one instance such reason seemed present (33).

- (32) [The addressee says that they had called the speaker earlier that day. The speaker responds:]
 Oh, was ik er niet, *zeker*?
 Oh was I there not CONF
Oh, I wasn't there, huh?
- (33) [The addressee says that it froze a few days again, and that their hands hurt. The speaker responds:]
 Zo koud, *zeker*?
 So cold CONF

Generally, the results from the second corpus investigation are in accordance with the hypotheses based on the native speaker judgement elicitation as pictured in figure 8. It resulted that only the confirmational *hè* can be used when the speaker has authority over the truth of the factual proposition upon which it follows. When *hè* or *toch* is used, the belief is almost always already established in the speaker's ground prior to the conversation, and *zeker* generally occurs when it is not. Furthermore, the results show that *toch* never occurs in a context where there is clear reason for the speaker to expect agreement from the addressee, whereas *hè* is in fact able occur in such contexts. However, explicit reason to expect agreement from the addressee does not seem a prerequisite for *hè* to occur as such an explicit context is less often present when *hè* combines with a factual proposition as opposed to when it follows an evaluative statement.

8. Analysis of Dutch confirmationalals

Based on the results presented in the previous chapter, an analysis of the Dutch confirmationalals *hè*, *toch* and *zeker* can be made using the Interactional Spine Hypothesis as proposed by Wiltschko (to appear). In the following sections I will analyse the syntactic properties of each confirmational to account for the differences in their usage as seen in the previous chapter.

8.1 'Hè'

Taking the results from both the corpus investigations and the native speaker judgements elicitation into account, I propose that the confirmational *hè* can be used to associate with and value the coincidence feature of both $\text{Ground}_{\text{Spkr}}$ as well as $\text{Ground}_{\text{adr}}$ as is depicted in the structure in figure 18.

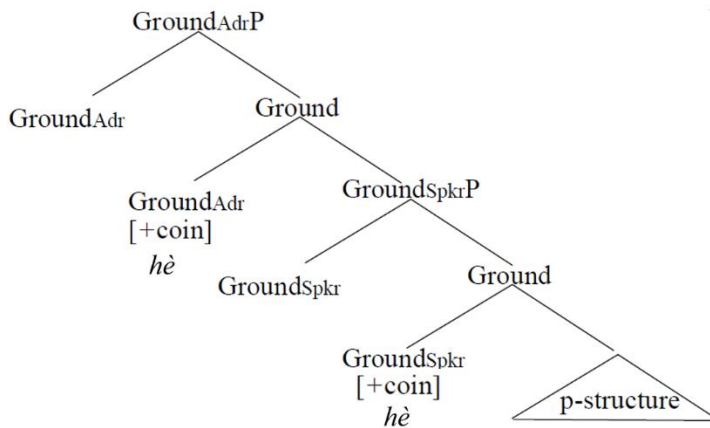


Figure 18: The confirmational *hè* associates with both $\text{Ground}_{\text{Spkr}}$ and $\text{Ground}_{\text{Adr}}$, and values their coincidence features positive.

First of all, this is based on the felicity of *hè* in situations in which the speaker has authority over the truth. For example, in the situation depicted by the third conversation board – and repeated in (34) – the speaker has authority over the truth, and the usage of *hè* is felicitous.

- (34) [Marie bumps into Jan while she is walking her new dog. Since Jan does not seem to notice Marie’s new dog, she utters:]
 Ik heb een nieuwe hond, hè?
 I have-2sg a new dog CONF
I have a new dog, eh?

Since the speaker, Marie, knows that she has a new dog, the coincidence feature in $\text{Ground}_{\text{Spkr}}$ is valued positive. Furthermore, Marie assumes that Jan, who is the addressee, knows that she has a new dog as well but she is uncertain about this assumption. Therefore the coincidence feature of $\text{Ground}_{\text{Adr}}$ must also receive the value [+coin]. In that way, the belief of the addressee can be put on the table. Since the usage of *hè* is felicitous in this situation where the belief of the addressee is put on the table, it shows that *hè* can associate with both $\text{Ground}_{\text{Spkr}}$ and $\text{Ground}_{\text{Adr}}$ and value both their coincidence features as positive.

Secondly, the hypothesis that *hè* can value both the coincidence feature of $\text{Ground}_{\text{Spkr}}$ as well as the coincidence feature of $\text{Ground}_{\text{Adr}}$, is also in accordance with the usage of *hè* following an evaluative statement. See for example the situation in (35), which is the same situation as depicted in conversation board 8.

- (35) [Stijn and Margot went to see a movie together. Stijn really liked the movie and wants to know whether Marie liked it as well. Therefore, he utters:]
 Dat was een goeie film, hè?
 That is-2sg-pst a good movie CONF
That was a good movie, eh?

In this case, the utterance containing the confirmational conveys the speaker’s own opinion as well as a request as to whether the addressee shares this opinion. In order to convey the speaker’s own opinion, the belief must be placed in the speaker’s ground. The coincidence

feature of $\text{Ground}_{\text{Spkr}}$ is thus valued as [+ coin] by the confirmational *hè*. In order to put the opinion of the addressee on the table, the coincidence feature of $\text{Ground}_{\text{Adr}}$ must also be valued positive by the confirmational *hè*. Again, the felicity of *hè* in such a situation shows that *hè* can value both the coincidence features of $\text{Ground}_{\text{Spkr}}$ and $\text{Ground}_{\text{Adr}}$ as positive.

Finally, I assume that Dutch is a language which is sensitive to the timing of grounding. That is, the usage of the different confirmationalals seems to be dependent on the timing of when the belief is established in the speaker's ground. The metalinguistic conversations with the participants indicated that *hè* is infelicitous when the speaker has no prior knowledge regarding the belief that is expressed by the utterance containing the confirmational, meaning that the belief is newly formed during the conversation. For example, look at the situation of conversation board 5, repeated in (36).

- (36) [Jan has bought a new dog. His friend Marie hasn't spoken to him for a long time, so she is unaware of Jan's new dog. When Marie bumps into Jan while he is walking his new dog, Marie utters:]
 *Je hebt een nieuwe hond, hè?
 You have-2sg a new dog CONF
You have a new dog, eh?

As theorised by Wiltschko (to appear) (see chapter 4), newly formed beliefs are not considered to be part of $\text{Ground}_{\text{Spkr}}$ in a language that is sensitive to the timing of grounding. Since the belief is newly formed during the conversation in the situation in (36), $\text{Ground}_{\text{Spkr}}$ may not be valued with [+ coin] but instead receives the value [- coin] from the confirmational that occurs. The infelicity of *hè* in this situation, shows that *hè* is unable to value the coincidence feature of $\text{Ground}_{\text{Spkr}}$ in such a way. I therefore suggest that the confirmational *hè* is able to value both the coincidence feature of $\text{Ground}_{\text{Spkr}}$ as well as the coincidence feature of $\text{Ground}_{\text{Adr}}$ with a positive value, whereas it cannot assign a negative value to $\text{Ground}_{\text{Spkr}}$.

8.2 'Toch'

Based on the results from the current research, I propose that the confirmational *toch* can only associate with and value the coincidence feature of $\text{Ground}_{\text{Spkr}}$, whilst it is unable to associate with $\text{Ground}_{\text{Adr}}$ and value their coincidence feature (see the structure in figure 19).

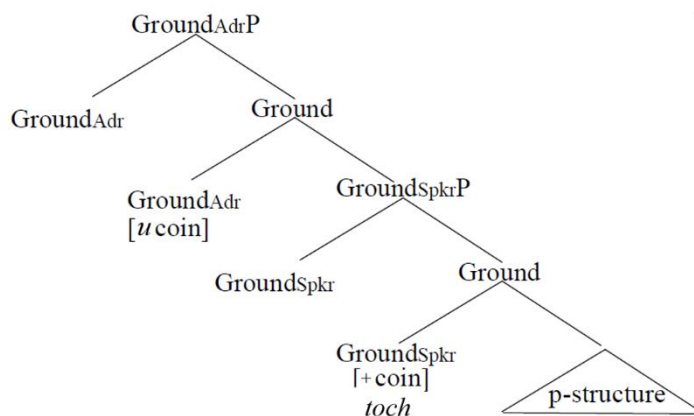


Figure 19: The confirmational *toch* only associates with $\text{Ground}_{\text{Spkr}}$ and values its coincidence feature positive.

This hypothesis results from a combination of observations. First of all, the native speaker judgements have shown that *toch* is infelicitous in a situation in which the speaker has authority over the truth. Consider for example the situation from conversation board 3 and example (34) again, as repeated in (37).

- (37) [Marie bumps into Jan while she is walking her new dog. Since Jan does not seem to notice Marie's new dog, she utters:]
 *Ik heb een nieuwe hond, toch?
 I have-2sg a new dog CONF
I have a new dog, right?

In this situation the speaker knows that they have a new dog, thus $\text{Ground}_{\text{Spkr}}$ must be valued with [+coin], and the belief of the addressee is put on the table, because of which $\text{Ground}_{\text{Adr}}$ must be valued with [+coin] as well. The infelicity of *toch* in this situation indicates that it must be impossible for *toch* to assign a positive value to at least one of the coincidence features of either $\text{Ground}_{\text{Spkr}}$ or $\text{Ground}_{\text{Adr}}$ or both.

As mentioned in chapter 4, a similar infelicity (the contrast between (6) and (7)) indicated that *huh* cannot be used when the coincidence feature of $\text{Ground}_{\text{Spkr}}$ must be valued [+coin] (Wiltschko, to appear). However, in a situation in which $\text{Ground}_{\text{Spkr}}$ must not receive a positive coincidence feature and $\text{Ground}_{\text{Adr}}$ does, the usage of *toch* is also infelicitous, indicating that *toch* does not have the same restrictions as *huh*. Consider for example the situation in (38), which is the same situation as depicted by conversation board 10.

- (38) [Stefan has just finished watching a movie when Linda comes to pick him up. Linda has no prior knowledge about the movie, but since Stefan looks really happy, she assumes that it must have been good. Therefore, she utters:]
 *Dat was een goeie film, toch?
 That is-2sg-pst a good movie CONF
That was a good movie, right?

Since the speaker has not seen the movie nor previously heard that it was good, the belief that the movie was good is not in the speaker's ground. The coincidence feature of $\text{Ground}_{\text{Spkr}}$ therefore must remain unvalued. Because Linda thinks that Stefan probably believes that the movie was good, the belief of the addressee is put on the table instead, and the coincidence feature of $\text{Ground}_{\text{Adr}}$ must receive [+coin]. The infelicity of the confirmational *toch* in this situation indicates that *toch* does not behave the same as *huh*, and cannot occur when the coincidence feature of $\text{Ground}_{\text{Spkr}}$ is not valued positive whilst the coincidence feature of $\text{Ground}_{\text{Adr}}$ is. Relating this to what resulted from the infelicity of *toch* in (37), the only possible analysis that remains is that *toch* can only be used when the coincidence feature of $\text{Ground}_{\text{Spkr}}$ must be valued positive and the coincidence feature of $\text{Ground}_{\text{Adr}}$ must remain unvalued or must be valued negative.

This hypothesis is in accordance with the usage of *toch* in evaluative statements. Consider for example the contrast between (39) and (40). According to the results from the metalinguistic conversations, *toch* is less felicitous in a situation where the speaker has read a book which they think was good, and would want to know whether the addressee thinks the same (38). Whereas *toch* is more felicitous in a situation where the speaker has only heard that the book was good and wants to confirm with the addressee whether this belief is correct (40).

- (39) [Bob and Mike have both read the latest Harry Potter book. Since Bob really liked the book, he utters:]
 ?Goed boek is dat, toch?
 Good book is-2sg that CONF
That's a good book, right?
- (40) [Mike just told Bob that he has read the latest Harry Potter book. Since Bob has read some positive reviews about the book on the internet, he utters:]
 Goed boek is dat, toch?
 Good book is that CONF
That's a good book, right?

In the situation in (39) the speaker conveys their own opinion and wants to confirm whether the addressee shares the opinion. For the speaker to convey their own opinion, the coincidence feature of $\text{Ground}_{\text{Spkr}}$ must be valued positive. For the speaker to request whether the addressee shares this opinion, the belief of the addressee must be put on the table, and therefore the coincidence of $\text{Ground}_{\text{Adr}}$ must be valued positive as well.

Native speakers confirmed that the usage of *toch* in this situation is odd. However, when the situation is slightly changed, the usage of *toch* becomes more felicitous. That is, in (40) it is no longer the opinion of the addressee that is put on the table, but instead the belief of the speaker is. Since the speaker has previously heard that the book is good, the belief that the book is good is in their ground ([+coin] for $\text{Ground}_{\text{Spkr}}$). However, since the speaker has not read the book but the addressee has, the speaker assumes the addressee to have authority over the proposition 'the book is good'. Therefore, the belief of the speaker that the book is good is put on the table for the addressee to confirm. So, instead of putting the addressee's opinion on the table by valuing [*u*coin] positive for $\text{Ground}_{\text{Adr}}$, it is the speaker's belief that is requested confirmation for, and the coincidence feature of $\text{Ground}_{\text{Adr}}$ remains unvalued. The intuition of the participants that *toch* is more felicitous in (39) than it is in (40), is therefore in line with the hypothesis that *toch* can only be used when the coincidence feature of $\text{Ground}_{\text{Spkr}}$ must be valued positive and the coincidence feature of $\text{Ground}_{\text{Adr}}$ must remain unvalued or must be valued negative.

Finally, the hypothesis that *toch* can only assign [+coin] to $\text{Ground}_{\text{Spkr}}$ and not to $\text{Ground}_{\text{Adr}}$ is also in accordance with the observation that *toch* cannot occur when there is clear reason for the speaker to expect agreement. That is, I assume that when the addressee has previously indicated that they believe a proposition *p*, but the speaker still utters the proposition followed by a confirmational, the coincidence feature of $\text{Ground}_{\text{Adr}}$ must be valued positive. Consider for example the interaction in (41).

- (41) A: Oh, echt?
 Oh really
 B: Ja
 Yes
 A: Oh, gezellig.
 Oh nice
 B: Leuk, hè?
 Fun CONF

In this case the second utterance of speaker A can be interpreted as a reason to assume that A will agree with the second utterance of B. Even though no native speaker judgements were conducted to test whether using *toch* is infelicitous in such a situation, the second corpus investigation does show that *hè* occurs often in such situations with clear reason for expected agreement, whereas *toch* does not. I assume that this is because it would be odd to use a confirmational which encodes insecurity about the addressee's belief (no [+coin] value for Ground_{Adr}) in a situation where the addressee's belief is already pointed out. However, native speaker judgements will be needed to confirm that *toch* is infelicitous in such a situation.

8.3 'Zeker'

Based on the results from the current research, I propose that the confirmational *zeker* can only associate with Ground_{Adr} and assign the value [+coin] to it, whereas it cannot assign [+coin] to Ground_{Spkr} (see the structure in figure 20).

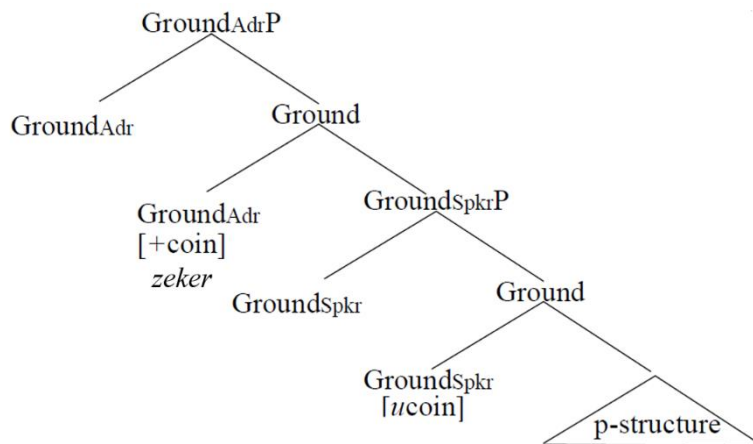


Figure 20: The confirmational *zeker* only associates with Ground_{Adr} and values its coincidence feature positive.

Firstly, this is based on the infelicity of *zeker* in situations in which the speaker has authority over the truth of the proposition upon which the confirmational follows. Consider for example the situation from conversation board 3 and example (34) and (37) again, as repeated in (42).

- (42) [Marie bumps into Jan while she is walking her new dog. Since Jan does not seem to notice Marie's new dog, she utters:]
 *Ik heb een nieuwe hond, zeker?
 I have-2sg a new dog CONF
I have a new dog, huh?

As already mentioned in section 8.1 and 8.2, both the coincidence feature of Ground_{Spkr} as well as the coincidence feature of Ground_{Adr} must be valued positive in this situation. Similar to the infelicity of *toch* in such situation, the infelicity of *zeker* in this situation indicates that it must be impossible for *zeker* to assign a positive value to at least one of the coincidence features of either Ground_{Spkr} or Ground_{Adr} or both.

However, contrary to what was shown for *toch* in the previous section, *zeker* is able to occur in a situation in which the coincidence feature of $\text{Ground}_{\text{Spkr}}$ remains unvalued and $\text{Ground}_{\text{Adr}}$ does receive the value [+coin]. Consider for example the situation of conversation board 10 again as depicted in (43).

- (43) [Stefan has just finished watching a movie when Linda comes to pick him up. Linda has no prior knowledge about the movie, but since Stefan looks really happy, she assumes that it must have been good. Therefore, she utters:]
 Dat was een goeie film, zeker?
 That is-2sg-pst a good movie CONF
That was a good movie, huh?

Again, since the speaker has not seen the movie nor previously heard that it was good, the belief that the movie was good is not in the speaker's ground. The coincidence feature of $\text{Ground}_{\text{Spkr}}$ therefore must remain unvalued. Because Linda thinks that Stefan probably believes that the movie was good, the belief of the addressee is put on the table instead, and the coincidence feature of $\text{Ground}_{\text{Adr}}$ must receive [+coin]. The felicity of *zeker* in this situation combined with the infelicity of *zeker* in (42), indicates that *zeker* may only associate with $\text{Ground}_{\text{Adr}}$ and assign the value [+coin] to it, whereas it cannot do so for $\text{Ground}_{\text{Spkr}}$.

This hypothesis about the usage of *zeker* is also in line with the assumption that Dutch is a language which is sensitive to the timing of grounding. That is, *zeker* is felicitous in situations in which the belief of the speaker is formed during the time of the conversation and can thus be seen as 'new', whereas *zeker* is infelicitous in situations where the belief is old and was formed prior to the conversation. Consider for example the contrast between (44) and (45).

- (44) [Jan has bought a new dog. His friend Marie hasn't spoken to him for a long time, so she is unaware of Jan's new dog. When Marie bumps into Jan while he is walking his new dog, Marie utters:]
 Je hebt een nieuwe hond, zeker?
 You have-2sg a new dog CONF
You have a new dog, huh?

- (45) [Peter tells Marie that their mutual friend Jan is going to move into a new house. Later that day, Marie bumps into Jan. To confirm what she heard from Peter, Marie utters:]
 *Je gaat verhuizen, zeker?
 You go-2sg moving CONF
You will be moving, huh?

In the situation in (44) the belief that Jan has a new dog, is a new belief which Marie forms during the time of the conversation. The coincidence feature of $\text{Ground}_{\text{Spkr}}$ must therefore be valued as [-coin]. In the situation in (45) on the other hand, the belief that Jan will be moving is already placed in the speakers ground prior to the conversation. Therefore, the coincidence feature of $\text{Ground}_{\text{Spkr}}$ must in this situation be valued as [+coin]. The felicity of *zeker* in (44) and its infelicity in (45) shows that *zeker* is able to associate with $\text{Ground}_{\text{Spkr}}$, but that it can only assign a negative value to its coincidence feature.

9. Discussion

This thesis has been the very first attempt at analysing the Dutch confirmational *hè*, *toch* and *zeker* from the perspective of the Interactional Spine Hypothesis as proposed by Wiltschko (to appear). Although this leads to interesting new insights, starting from a blank slate also has its down sides. One of these down sides is the bottom up approach that has been issued in this thesis. Since there was little known about the difference in usage between the three confirmational, the first corpus investigation started off quite broad. Based on the results retrieved by this first general investigation, the native speaker judgements were elicited and a final corpus investigation was issued. Although especially the metalinguistic conversations lead to very interesting insights, the hypotheses that were tested by the native speaker judgement elicitation could have been more precise in hindsight. For example, the representation of new versus old beliefs should have been more clear in the conversation boards as participants indicated that different interpretations of the conversation boards led to different judgements. And another example is that expected agreement was not represented in the conversation boards at all whilst it seems of critical importance for the proposed analysis in retrospect.

On the other side, the bottom up approach was necessary in order to establish the final analysis of the different confirmational without any prior hypotheses. The conversation boards in their current form did function well enough for the initiation of metalinguistic conversations with the participants, which in turn lead to the insights that allowed for the final analysis. However, since the native speaker judgement elicitation did not directly test the hypotheses about the usage of the confirmational as described in in the analysis of chapter 8, I still refer to my analysis of the confirmational as hypotheses that are very likely, but not yet completely confirmed. Therefore, for future research, I would like to propose a top down approach in which conversation boards are manipulated directly to test the hypotheses as proposed in chapter 8.

10. Conclusion

In this thesis I have aimed to characterize and explain the difference in usage of the three Dutch confirmational *hè*, *toch* and *zeker* using the theory proposed by Wiltschko (to appear). In order to do so, I have first explained the idea behind Wiltschko's hypotheses (chapter 2). I have elaborated on how the syntacticization of speech acts is important for researching language in interaction, and how different linguistic traditions should be combined for this type of linguistic research. After doing so, I have illustrated Wiltschko's theory (to appear): how it works in chapter 3, and how it can be used to analyse the usage of different confirmational in chapter 4. In chapter 5, I have reviewed some of the sparse literature on *hè*, *toch*, and *zeker*, before explaining the method of the current research in chapter 6.

Since no characterization of the Dutch confirmational had been attempted before, the research in this thesis was explorative in nature. It was conducted with the aim of forming hypotheses about the differences between the confirmational, rather than testing hypotheses. In order to form such hypotheses, insights as well as methodologies from the generative linguistic tradition and the functional linguistic tradition were combined, even though these traditions are often viewed as contradictory and incompatible with each other. For this reason the method of the current research was threefold in order to combine the different

methodologies. It consisted of a first corpus investigation, native speaker judgements elicitation, and another final corpus investigation. Using the results from this threefold investigation, I proposed a final analysis of the differences between the three confirmationals based on the *Interactional Spine Hypothesis* of Wiltschko (to appear).

In my final analysis I propose that *hè* can be used to encode both what is in the speaker's ground as well as what is in the addressee's ground. Firstly, this is based on the possibility to use *hè* for rhetorical questions when what is in the addressee's ground is put on the table and therefore must be encoded by the confirmational. Secondly, it is based on the infelicity of *hè* when the belief of the speaker is not yet established in the speaker's ground prior to the conversation, in which case the belief of the speaker is not encoded by the confirmational. I also propose that *toch* can only be used to encode what is in the speaker's ground and cannot encode what is in the addressee's ground. This is based on the inability of using *toch* for a rhetorical question in which the addressee's ground is put on the table and the ability of using *toch* in order to convey what is in the speaker's ground. Finally, I propose that *zeke* may only be used to encode what is in the addressee's ground and cannot encode what is in the speaker's ground. This is mainly based on the inability of using *zeke* in situations where the speaker expresses what their own opinion is.

The finding of such a clear characterization of the differences between these Dutch confirmationals shows that there is in fact systematicity to be found in the usage of interactional language particles. The combination of insights from both formal traditions as well as functional traditions therefore appears to be very effective, and the dichotomy that has ruled the study of language is in fact spurious. Using this newly formed approach, as used in this thesis and as inspired by the work of Wiltschko (to appear), new doors are opened to study discourse phenomena and language in interaction from a systematic and syntactic perspective.

References

- Austin, J. (1962). *How to Do Things with Words*. Oxford: Oxford University Press.
- Clark, H. and Brennan, S. (1991). Grounding in Communication. In *Perspectives on socially shared cognition*. Washington: APA Books., by L.B. Resnick, J.M. Levine and S.D. Teasley. Washington: APA books.
- Enfield, N. J., Brown, P., & De Ruiter, J. (2012). Epistemic dimensions of polar questions: Sentence-final particles in comparative perspective. In J. P. De Ruiter (Ed.), *Questions: Formal, functional and interactional perspectives* (pp. 193-221). New York: Cambridge University Press.
- Elffers, E. (1992). Wat betekent toch toch. *De kunst van de grammatica: Artikelen aangeboden aan Frida Balk-Smit Duyzentkunst*, 63-80.
- Foolen, A. (1994). Toch wel [On the Dutch particle toch]. In R. Boogaart & J. Noordegraaf (Eds.), *Nauwe betrekkingen: Voor Theo Janssen bij zijn vijftigste verjaardag* (pp. 81–88). Amsterdam, The Netherlands: Stichting Neerlandistiek VU.
- Oostdijk, N. (2000). Building a corpus of spoken Dutch. In Paola Monachesi (red.), *Computational Linguistics in the Netherlands 1999. Selected Papers from the Tenth CLIN Meeting*. Utrecht: Utrecht Institute of Linguistics OTS, p.147-157
- Ross, John. 1970. "On declarative sentences." In R. Jacobs & P. Rosenbaum (eds.) *Readings in English transformational grammar*.
- Seuren, L. (2020, January 10). *Dit is het einde van de zin, toch?* Retrieved from <https://www.neerlandistiek.nl/2020/01/dit-is-het-einde-van-de-zin-toch/#more-47747>
- Speas, P., & Tenny, C. (2003). Configurational properties of point of view roles. *Asymmetry in Grammar*, 1: 315-345.
- Stalnaker, R. (2002). Common ground. *Linguistics and philosophy*, 25 (5): 701-721.
- Wiltschko, M. (to appear). *The grammar of interactional language*.
- Wiltschko, M. (2014). *The universal structure of categories: Towards a formal typology* Cambridge University Press.
- Yang, X., & Wiltschko, M. (2016). The confirmational marker ha in Northern Mandarin. *Journal of Pragmatics*, 104, 67-82.

Appendix 1

Conversation board 1:



De soldaten zeggen tegen de commandant:

1. Ja, baas, hè?
2. Ja, baas, toch?
3. Ja, baas, zeker?

Translation:

The new recruits at the army are ready for their first training. They salute the major. The major orders them to march ('Forward.. March!'). The soldiers respond: 'Yes, boss, CONF?'

Conversation board 2:



Mike zegt tegen Bob:

1. Nou, ik heb een nieuwe auto gekocht, hè?
2. Nou, ik heb een nieuwe auto gekocht, toch?
3. Nou, ik heb een nieuwe auto gekocht, zeker?

Translation:

Bob and mike are at the bar drinking a beer. They're talking about various subjects like work and family. After a silence Bob asks: 'So what's new?' Mike can only think of one thing which hasn't told Bob yet. 'Well, I bought a new car, CONF?'

Conversation board 3:

Marie heeft een nieuwe hond en daar is ze heel blij mee.	Terwijl ze haar nieuwe hond uitlaat komt ze Jan tegen. Ze verwacht dat Jan haar hond meteen op zal merken	Als Jan na 5 minuten nog niks over de hond heeft gezegd, zegt Marie:
		

Marie zegt tegen Jan:

1. Ik heb een nieuwe hond, hè?
2. Ik heb een nieuwe hond, toch?
3. Ik heb een nieuwe hond, zeker?

Translation:

Marie bought a new dog and is really happy with it. While she is walking the dog, she runs in the Jan. She expects that Jan will notice her dog immediately ('Jan will notice'). When Jan has not mentioned the dog after 5 minutes, Marie says: 'I have a new dog, CONF?'

Conversation board 4:

Peter schrijft zich in voor de wachtlijst om een hond te adopteren uit het asiel.	Een week later wordt Peter gebeld door de mevrouw van het asiel.	Nog voor de vrouw haar aankondiging afmaakt, valt Peter haar in de rede:
		

Peter zegt tegen de mevrouw:

1. Ik heb een nieuwe hond, hè?
2. Ik heb een nieuwe hond, toch?
3. Ik heb een nieuwe hond, zeker?

Translation:

Peter signs up for the waiting list to adopt a dog out of a shelter. A week later, Peter gets a phone call from the shelter. Before the woman can finish her announcement, Peter asks: 'I have a new dog, CONF?'

Conversation board 5:

<p>Peter en Marie zijn beiden bevriend met Jan, ze wonen namelijk alle drie in hetzelfde gebouw. Peter hoorde laatst gebelaf dus vraagt hij aan Marie:</p>	<p>Later die dag komt Marie toevallig Jan tegen op straat en hij heeft een hond bij zich.</p>	<p>Marie zegt tegen Jan:</p>
 <p>Weet jij of Jan een nieuwe hond heeft?</p> <p>Nee, geen idee. Ik heb hem al lang niet meer gesproken.</p>		 <p>...</p>

Marie zegt tegen Jan:

1. Je hebt een nieuwe hond, hè?
2. Je hebt een nieuwe hond, toch?
3. Je hebt een nieuwe hond, zeker?

Translation:

Peter and Marie are both friends with Jan since they all live in the same building. Lately, Peter has heard a dog barking in the building and asks Marie: 'Do you know if Jan has a new dog?' Marie: 'No, I have no idea. I haven't spoken to Jan in a long time'. Later that day Mary bumps into Jan and he is walking a dog. Marie asks: 'You have a new dog, CONF?'

Conversation board 6:

<p>Peter en Marie zijn beiden bevriend met Jan, ze wonen namelijk alle drie in hetzelfde gebouw. Peter vertelt Marie dat Jan is begonnen met sporten:</p>	<p>Later die dag komt Marie Jan tegen op straat.</p>	<p>Marie wil bevestigen wat ze eerder gehoord heeft van Peter en zegt:</p>
		

Marie zegt tegen Jan:

1. Je bent begonnen met sporten, hè?
2. Je bent begonnen met sporten, toch?
3. Je bent begonnen met sporten, zeker?

Translation:

Peter and Marie are both friends with Jan since they all live in the same building. Peter tells Marie that Jan has started working out. Later that day, Marie bumps into Jan. Marie wants to confirm what she heard earlier from Peter and asks: 'You have started working out, CONF?'

Conversation board 7:

<p>Peter en Marie zijn beiden bevriend met Jan, ze wonen namelijk alle drie in hetzelfde gebouw. Peter vertelt Marie dat Jan gaat verhuizen:</p>	<p>Later die dag komt Marie Jan tegen op straat.</p>	<p>Marie wil bevestigen wat ze gehoord heeft van peter en zegt:</p>
		

Marie zegt tegen Jan:

1. Je gaat verhuizen, hè?
2. Je gaat verhuizen, toch?
3. Je gaat verhuizen, zeker?

Translation:

Peter and Marie are both friends with Jan since they all live in the same building. Peter tells Marie that Jan is going to move. Later that day, Marie bumps into Jan. Marie wants to confirm what she heard earlier from Peter and asks: 'You are moving, CONF?'

Conversation board 8:

<p>Stijn neemt Margot mee naar een film waar zijn favoriete acteur in speelt.</p>	<p>Stijn geniet vol spanning van de film.</p>	<p>Wanneer ze na afloop het theater weer uitlopen zegt Stijn tegen Margot:</p>
		

Stijn zegt tegen Margot:

1. Dat was een goeie film, hè?
2. Dat was een goeie film, toch?
3. Dat was een goeie film, zeker?

Translation:

Stijn takes Margot to the cinema to see a movie with his favourite actor. Stijn really enjoys the movie. When they leave the cinema afterwards, Stijn says to Margot: 'That was goo movie, CONF?'

Conversation board 9:

<p>Bob en Mike zitten in een kroeg aan de bar een biertje te drinken.</p>	<p>Bob vertelt aan Mike dat hij laatst het nieuwe Harry Potter boek heeft gelezen.</p>	<p>Mike heeft dat boek ook gelezen en zegt:</p>

Mike zegt tegen Bob:

1. Goed boek is dat, hè?
2. Goed boek is dat, toch?
3. Goed boek is dat, zeker?

Translation:

Bob and Mike are at the bar drinking a beer. Bob tells Mike that he has read the new Harry Potter book ('I have read the new Harry Potter Book'). Mike has also read that book and says: 'That's a good book, CONF?'

Conversation board 10:

<p>Linda zet Stefan af bij de bioscoop. Ze gaat zelf niet mee naar de film omdat ze naar yogales gaat en ze toch niet van actiefilms houdt.</p>	<p>Stefan geniet van de film.</p>	<p>Linda komt Stefan weer ophalen als de film is afgelopen. Omdat Stefan heel blij de bioscoop uit komt zegt Linda:</p>

Linda zegt tegen Stefan:

1. Dat was een goeie film, hè?
2. Dat was een goeie film, toch?
3. Dat was een goeie film, zeker?

Translation:

Linda is dropping Stefan off at the cinema. She doesn't join him to see the movie because she has to go to yoga practice and doesn't like action movies anyway. Stefan enjoys the movie. Linda comes to pick up Stefan again when the movie is done. Because Stefan is leaving the cinema very happily, Linda says: 'That was good movie, CONF?'