Similar, yet different
On the acquisition of *doch*
by Dutch learners of German

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Acknowledgements

In October 2010 I started my work as a student assistant in the research group Optimal Communication, not knowing that this would kick-start my academic career.

“You will start publishing stuff from now on!”, the other student assistant Wessel Stoop told me during my introduction in the department. I was like “OK, that’s nice!”, but I didn’t expect that I would end where I am now, less than a year later, looking forward to a job as a junior teacher in German linguistics and as a Ph.D student in child language acquisition. Therefore, I would like to thank some people.

First of all, I would like to thank Helen de Hoop. From the moment she got aware of my academic ambitions she offered me the possibilities to expand my knowledge and network by visiting conferences and giving talks. Moreover, she was the one who pointed out to the possibility of writing an individual research proposal for an NWO grant. Actually, she insisted that I gave it a try. As a result, I had more or less three weeks to come up with an entire proposal. Even when I told her that I wanted to write a proposal on applied linguistics rather than on theoretical linguistics, she remained to be of help. Without Helen’s confidence, I think I would have missed the endurance
to write a proposal in such a short period of time. Thanks for your faith, Helen!

Moreover, I would like to thank her for convincing me of the fact that it would be much more fun to write my second master’s thesis on the second language acquisition of particles by conducting an experiment rather than, again, on the first language acquisition of particles by conducting corpus analyses. I have to admit that I made that decision quite late, but I am very happy that I did, because I’ve learned a hell of a lot by setting up an online experiment and carrying out the appropriate statistics. Thanks again!

The second person I want to thank is Lotte Hogeweg. She supervised my internship, offered me the possibility of giving a talk with her in Utrecht and as a result of that we wrote an article together. And, most importantly, she supervised this thesis. By treating me more or less as a colleague rather than as a student, she made me feel confident and not afraid of sharing my ideas and insights. Moreover, she taught me a lot about semantics and – perhaps even more important – about the necessity of introducing and motivating ideas against the background of existing frameworks. We had a lot of interesting and constructive discussions about cross-linguistic particle functions, sometimes reaching the conclusion that particles
are an impossible – yet still fun! – topic of study. I sincerely hope that we keep sharing ideas in the future.

Obviously, I didn’t design the experiment on my own. The research I conducted for this study was part of a larger investigation. My colleague Verena Wottrich looked at (and is still looking at) the use of the German particle *wohl* by second language learners. I am glad that I could evaluate the different phases of the investigation in a more informal way with her by sharing each other’s ups and downs.

Luckily, we didn’t have to find out all about the programme NetQuestionnaire ourselves in order to set up the experiment… I am very thankful for the help of Dimphy Coldenhoff, who did her internship in our research group. We provided her with our experimental stimuli, she took care of the ‘technical stuff’. She also offered us some additional services, for example writing updates about the number of participants that already took part in our investigation and more importantly, about their results. Other things that I would like to thank her for are her mental support and her critical questions.

Other technical support came from dr. Rob Le Pair from the department of communication and information studies. He
took care of the online distribution of our experiment. Many thanks for that!

A factor that caused me some (last-minute) stress were the statistics. Thankfully, the department of linguistics has some brilliant statisticians at its disposal, who are always ready to help in times of need. In my case, it was dr. Frans van der Slik who ran a dozen of tests on my material. I must admit (and Dimphy can confirm this) that it was quite impressive and even a little bit discouraging to see him clicking numerous buttons in SPSS, producing several graphs and tables, deleting them again and leaving me after an hour with a few sheets of commands in syntax and the message: “You can run the analyses again by yourself”. “No problem!...” *sigh*
Eventually, I did it! Thank you for a crash course in (logistic) regression analysis!

Last but not least, I would like to thank the teachers and/or secretaries from the German departments of the universities of Nijmegen, Utrecht, Leiden, Amsterdam and Groningen for distributing my questionnaire and of course all the students that participated in the experiment.
Contents

Acknowledgements 3

Contents 7

1. Introduction 10

2. Particles in general 14
2.1 Introduction 14
2.2 General characteristics 15
2.3 Particle semantics 17

3. On German *doch* (with some attention for its Dutch equivalents *wel* and *toch*) 20
3.1 Introduction 20
3.2 Describing German *doch*: Shortcomings 21
3.3 *Doch* and discourse context structures 22
   3.3.1 Corrective answering particle 25
   3.3.2 Correction 27
   3.3.3 Concession 28
   3.3.4 Concessive opposition 30
   3.3.5 Reminder of *cg* (modal use) 33
3.4 Dutch equivalents of German *doch* 36
4. Earlier studies on the first and second language acquisition of particles

4.1 First language acquisition of particles 43
4.2 Second language acquisition of particles 45
4.3 Research questions and hypothesis 57

5. Method 60
5.1 Introduction 60
5.2 Assessing language proficiency with the Cloze test 60
5.3 Materials: The questionnaire 62
  5.3.1 The structure of the questionnaire 62
  5.3.2 Test items 63
  5.3.3 Filler items 64
5.4 Participants and procedure 66
  5.4.1 Pretest 66
  5.4.2 Main experiment 66

6. Analysis and results 68
6.1 Analysis, results and implications of the pretest with native Germans 68
6.2 Analysis and results of the main experiment with Dutch second language learners of German 76
6.2.1 Frequency analysis

6.2.2 Performance on doch in general
as predicted by ‘year of study’ and
‘amount of contact with natives’

6.2.3 Performance on the individual uses
of doch as predicted by ‘year of study’
and ‘amount of contact with natives’

6.2.4 Performance on the individual uses of
doch as predicted by ‘version’

6.2.5 If not doch, then what?!

7. Discussion, conclusion and future challenges

References

Appendix 1: The questionnaire (versions 1-4)

Appendix 2: Summary of the results of the pretest
1. Introduction

Particles have been troubling researchers since the upcoming of pragmatics in the 1960s. Because particles can belong to different word classes, e.g. adverb, conjunction or modal particle, their exact function can vary. Moreover, these functions can again be influenced by the discourse context at hand. The following example (1) can illustrate this:

(1) Ich habe doch hier irgendwo meine Schere hingelegt…
‘I must have put my scissors somewhere here…’

In this example, *doch* functions as a modal particle. As will become clear in this thesis, this function is particularly problematic, a.o. because of its context dependence. The speaker uttering the sentence in (1) can have different intentions. If the speaker is alone, she might utter the sentence to remind herself of the place where she put the scissors. If more people are present, the utterance can just as well function as an indirect call for help. It might even be an insinuation that someone took the scissors. One can imagine that many researchers started to question the learnability of
particles. How should a second language learner ever see through all these subtle functions and the different effects brought about by particles? This question has been put to the test repeatedly. However, the languages that have been investigated always were very dissimilar with respect to their particle inventory and use (e.g. English and Chinese, see section 4.2). Studies comparing languages that are very similar are rare. Therefore, this thesis deals with Dutch and German. Both languages make use of a rather extensive number of particles, some of which are acoustically and/or semantically very similar (e.g. *doch* vs. *toch*, *wohl* vs. *wel*).

What are the consequences of these facts for the acquisition of German particles by Dutch learners of German? Will the acquisition process be fast and easy due to the similarities, or might the subtle differences cause learners to make a substantial amount of mistakes? Another possibility is that the first language doesn’t matter that much and that the acquisition of certain particle uses develops in line with a more or less universal pattern that is also attested for other language combinations. This pattern is dependent on the relative difficulty or saliency of the particle in the target language.

In this thesis, I will investigate the acquisition and usage of the different uses of the German particle *doch* by Dutch university
students of German. First, I will give a semantic-pragmatic analysis of the particle under investigation. Subsequently, I will look at the use of *doch* by the Dutch students by means of an experiment. The main research question is whether we can detect differences in the correct use of the several uses of *doch* when comparing students of different proficiency levels.

In order to give some insight into particle research and into the work that has been done on the acquisition of these words, an extensive theoretical background will be provided. Starting with an introduction into particles, I will discuss their most important characteristics in chapter 2. In chapter 3, the particle under investigation in this study – German *doch* – will be analyzed. The several uses of *doch* will be classified on the basis of its semantic/pragmatic characteristics. Additionly, its Dutch translational equivalents *toch* and *wel* are discussed in order to point at the similarities and differences that might influence the acquisition process. In chapter 4, I will look at previous research on both the first and second language acquisition of particles and discuss the explanations that these studies provide for their results.

The second part of this study deals with the experiment I conducted among Dutch learners of German.
In chapter 5, the method, materials and participants will be introduced. The analyses and results of the experiment will be discussed in chapter 6. Finally, chapter 7 will contain a summary of the findings, a conclusion and some recommendations for future research and education.
2. **Particles in general**

2.1 **Introduction**

If we look at the history of research on particles, we must conclude that these words have been left out of consideration for quite a long time. Because of their prevalence in spoken language and their informal nature, they were often labeled ‘parasites’ and considered to be of secondary importance (cf. Hentschel 1986).

In the 1960s, however, the emerging discipline of pragmatics changed the climate for particle research: The discipline of pragmatics regards language as a form of social interaction and looks at utterances as being ‘speech acts’, following the speech act theory by Austin (1962) and Searle (1969). Speech acts are the basic units of communication, consisting of four parts: Articulation, proposition or locution (the content), illocution (the intention) and perlocution (the actual effect) (Busch & Stenschke 2008: 216ff.). In 1976, Wunderlich ascribed to particles the function of modifiers of the illocutionary force of an utterance. It became increasingly clear that particles contribute to the authenticity of speech: Both were reasons for pragmaticians to start paying attention to these small, apparently ‘meaningless’ words.
2.2 General characteristics

Particles can be defined in a number of ways. From a morphological point of view, the term ‘particle’ is used for words that cannot be inflected. Neither can a particle constitute a clause on its own. However, these characteristics also hold for (many) adverbs, conjunctions and prepositions. The term ‘particle’ can be understood in a broad sense, including these adverbs, conjunctions, prepositions and particles in a narrow sense. In the latter sense, ‘particle’ is used to refer to several subclasses, e.g. modal particles, focus particles and answering particles. What distinguishes these particles from most of the words subsumed under the broad sense is that they are not obligatory: A sentence doesn’t become ungrammatical if a particle is left out (Busch & Stenschke 2008: 121ff.).

Another important feature of particles is that they almost always have homonyms or equivalents in other word classes. As we will see, *doch* can be used both as a modal particle and as a conjunction or adverb. This phenomenon – the coexistence of one form in several functional classes – is best explained by *grammaticalization* (Foolen 1993: 87ff.). During this process, words develop through three stages in the course of time: 1) propositional, 2) textual (to serve text cohesion, e.g. conjunctions) and 3) expressive (pragmatic, e.g. modal particles). Usually, the development goes hand in hand
with semantic weakening and pragmatic strengthening. The development is driven by the fact that people start applying existing lexical forms when they encounter new situations that are in need of some linguistic expression. A known word can creatively be re-used until this new use becomes conventionalized. Importantly, the new use still has some features in common with the ‘old’ use, albeit in an implicit or weaker sense. According to Foolen (1993), modal particles can be seen as endpoints of grammaticalization, as weakening their meaning even further would probably leave them as elements void of any function.

Another characteristic of particles is that they can be combined almost endlessly, as in (2).

(2) Vielleicht hat er es ja doch schon gemacht.

Perhaps has he it PART PART done.

‘Perhaps he has already done it anyway’

Moreover, particles cannot be negated and they cannot be questioned.

Additionally, particles – especially those of the modal type – are often compatible with certain sentence types and fixed
constructions (e.g. directives or wish constructions). As will become clear in chapter 3, this also holds for *doch*.

One thing to mention with respect to the meaning of particles is their indexical or deictic nature. Most of the time, particle meanings cq. functions can only be understood in light of the conversational context at hand. Particles cannot refer to anything that lies outside of the ‘here-and-now’ (cf. Zimmermann 1981; Busch & Stenschke 2008). Since there is a lot of descriptive work available on particle meaning, section 2.3 will deal with particle semantics in more detail.

### 2.3 Particle semantics

The most important characteristic of particles is their polyfunctionality: As was already mentioned in section 2.2, one particle often occurs in several word classes or functional categories with divergent distributional and semantic characteristics. Besides, even within one category, particles can differ in their exact meaning or function¹, depending on the situational and linguistic context. One can imagine that this makes it complex to write a comprehensive overview of the meaning(s) and functions of one particle, like *doch* in this case. Modal particles can be brought up as prototypical in this

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¹ In particle research it is hard to describe what exactly has to be called a ‘function’ and what can be called a ‘meaning’. Therefore, both terms are used interchangeably, unless reported otherwise.
regard, because it is hardly possible to attribute a lexical, context-independent meaning to them.

There are several ways to approach this descriptive problem. One perspective to look at particle meaning is semantic maximalism (also called the homonymy approach). Maximalists proceed in an inductive way and try to attribute a unique description to each functional usage, regardless of the other uses. Different functions are thus based on different underlying concepts (Foolen 1993).

The exact opposite is proposed by supporters of semantic minimalism (or the monosemy approach): They take a deductive perspective and try to describe one general, overall meaning, which can be enriched by contextual determinations (Coseriu 1970: 2). The proposed semantic nucleus (or core meaning) is stable across uses, yet hard to paraphrase. Whereas semantic maximalism would emphasize the differences between the various particle functions, semantic minimalism would mainly be interested in their commonalities. Somewhere in between, combining the two approaches, we find the polysemy approach. Supporters of the polysemy approach consider both semantic and pragmatic commonalities and differences. In light of what is said about the grammaticalization process, this seems to be the most suitable approach: Existing words and their meanings are applied in new situations with a new purpose. As a result, a
new meaning or function develops and gets conventionalized, but there will still be some link to the ‘old’ meaning.\footnote{How this link should be defined lies outside the scope of this investigation. One possibility is that forms within some ‘meaning family’ are linked in such a way that A and B overlap in their meaning, as well as B and C, but not necessarily A and C etc. (Foolen 1993: 77).}

In the next chapter, I will classify the several uses of *doch*. I will focus on both their commonalities and their differences. Moreover, the Dutch translational equivalents of these uses will be discussed.
3. On German *doch* (with some attention for its Dutch equivalents *wel* and *toch*)

3.1 Introduction

The goal of this chapter is to give a semantic-pragmatic description of the German polyfunctional particle *doch*. This chapter is partly based on Hogeweg, Ramachers & Wottrich (to appear) (3.2-3.3). As was already mentioned in section 2.3, the polysemy approach seems to be most suitable for describing particles, as it leaves room for both commonalities and differences.

As this study deals with the second language acquisition of German particles by native speakers of Dutch, I will also discuss two important Dutch translational equivalents cq. cognates of *doch* as well, namely *wel* and *toch* (3.4). In previous literature, (a.o. Zeevat & Karagjosova 2007; Hogeweg 2009), more or less the same semantics (correction of or contrast with an element in the common ground, see section 3.3) are attributed to the (stressed) uses of these particles. However, when comparing the two Dutch particles with the functions postulated for *doch*, Hogeweg et al. (to appear) found some interesting cases of both overlap and divergence: *Doch* cannot always be translated by *toch*, and *wel* and *toch* are not interchangeable in Dutch. How can these distributional differences be explained? Apparently there is
something more to it. This will be addressed in sections 3.3 and 3.4. Paying attention to the initial state of Dutch learners of German – that is: the particle inventory and particle functions in Dutch – could be of importance to explaining the results of the current study (e.g. with respect to possible transfer effects, see section 4.2).

3.2 Describing German *doch*: Shortcomings

It is well known that research on particles crosses the domains of syntax, semantics, pragmatics and discourse, making it quite challenging to provide a clear and satisfactory description that takes into account the influence of all these domains. Many authors did manage to write a classification for *doch* that combines elements from all the above mentioned domains (e.g. Hentschel 1986; Ormelius-Sandblom 1997; Métrich & Faucher 2009). There seems to be some agreement about which feature is shared by all uses of *doch*, namely the fact that it is primarily used to indicate some kind of inconsistency between a new proposition and already existing assumptions (Ramachers 2010: 17 ff.). However, there is a great deal of disagreement about other questions such as where to draw the line between particle and adverb, what uses should be considered modal, whether these modal uses can or cannot be attributed a meaning and so forth. Consulting dictionaries (a.o. Müller & Eckey 1985; Cox & Stoks 1990;
Götz et al. 1998; Paul 2002) isn’t of any help in disentangling what categories should or could be distinguished. Terms like adversative and contrastive seem to be used quite randomly or even as synonyms when describing the functions of *doch.*

Taking into account the lack of attention to particles in second language teaching as well, it shouldn’t come as a surprise that they are problematic for learners. Therefore, Hogeweg et al. (to appear) decided to look at particles from a new perspective and with special regard to cross-linguistic differences and similarities. This perspective and its implications for *doch* will be the topic of sections 3.3 and 3.4.

### 3.3 Doch and discourse context structures

According to Möllering (2001 a.o.), the teaching of (modal) particles requires explicit teaching of pragmatic features to make learners aware of the exact communicative value of particles (see section 4.2). As was said before, particles are deictic, that is, they can only be used and interpreted correctly within a shared conversational framework. Using particles in an appropriate way thus requires the learner to take the (cognitive / emotional / intentional) states of its interlocutors into consideration. Describing the different uses of *doch* with

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3 Whereas the difference between these notions might be only very subtle, Malchukov (2004) shows that some languages (e.g. Russian) do linguistically encode these semantic notions separately. In using these terms, some prudence is definitely in order.
regard to its relation to and its implications for the discourse context therefore seems to be a suitable way to make learners (university students, for example) aware of its exact pragmatic functions.

A way to visualize this is by providing discourse context structures (Farkas & Bruce 2009) for the different uses of *doch*. Before these contexts can be constructed, we need to break down the discourse into components in order to be explicit about when *doch* can be used and about what the effect of the use of *doch* is. Following Stalnaker (1978), Farkas & Bruce (2009) state that the essential goal of assertions is to add their propositional content to the so called *common ground* (*cg*). This means that a speaker wants to turn her *individual (or discourse) commitment set* (*DC*), consisting of the propositions that she has publicly committed to, into a set of joint, public commitments. Polar (yes/no) questions, as opposed to assertions, aren’t based on personal commitments and propose to add either the denotation of the sentence (*p*) or its complement (*¬p*) to the *cg*. According to Stalnaker (1978), an assertion is only felicitous if the proposition expressed isn’t already part of the *cg*. The *cg* is understood as a set of propositions that is shared by all discourse participants. These propositions may have been explicitly confirmed in the discourse (or pragmatic pretext), but
they can also be part of the participants' more general (world) knowledge.
Importantly, assertions propose additions to or changes of the cg, rather than actually changing it directly. Farkas & Bruce (2009) argue that we have to make this distinction to be able to describe the reactions that an assertion can elicit and the influence they have on the cg. These reactions are e.g. confirmation (leading to addition or upgrading of the cg) or, in the case of doch more importantly: rejection (leading to attrition or downgrading of the cg), the latter being a less canonical conversational move than the former.
 Additionally, we distinguish the discourse component QUD: A question or issue under discussion that is placed on ‘the Table’. The Table represents what is currently at issue. A conversational move that puts something on the Table simultaneously projects a set of future common grounds (resolutions), which is called the projected set (ps). An assertion puts one proposition on the Table and thus one resolution is projected, whereas a polar question puts two propositions on the Table and therefore yields two possible future outcomes. It depends on the reaction of the interlocutor whether this future set will become part of the cg.
Applying this framework to doch leads to a description distinguishing between 5 different uses. Karagjosova (2009a) makes a quite similar distinction but explicitly takes functional
classes as her starting point, whereas the current study departed from a more semantic/pragmatic perspective. The uses are based on the relationship of *doch* to the discourse context and its potential to change this context.

### 3.3.1 Corrective answering particle

In this use (also called response particle (Karagjosova 2006, 2009b), or sentence equivalent, (Métrich & Faucher 2009)), *doch* reacts to (denies) a negative assertion on the Table. Interlocutor B commits himself to the complement of the denotation of the declarative sentence placed on the Table, in example (3) by the preceding utterance by interlocutor A:

\begin{align*}
\text{(3)} & \quad \text{A: Peter kommt nicht.} \\
& \quad \text{,'Peter isn't coming'} \\
& \quad \text{B: } ^{9}\textit{Doch!}^4 \\
& \quad \text{‘yes he is!’}
\end{align*}

This can be represented as follows:

#### 0: Initial context state

<table>
<thead>
<tr>
<th>A (DCA)</th>
<th>Table</th>
<th>B (DCB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(cg = cg_1)</td>
<td></td>
<td>(ps_1 = cg_1)</td>
</tr>
</tbody>
</table>

\(^4\) The symbol \(^9\) denotes that the following syllable is stressed.
1: A asserts ‘Peter kommt nicht‘ relative to 0

<table>
<thead>
<tr>
<th></th>
<th>Proposition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>‘Peter kommt nicht‘: ¬S [Declarative] ; {p}&gt;</td>
<td>cg 2 = cg 1</td>
</tr>
<tr>
<td></td>
<td>ps 2 = cg 2 + p</td>
<td></td>
</tr>
</tbody>
</table>

2: Denial on the table: B asserts ‘Doch!’ relative to 1

<table>
<thead>
<tr>
<th></th>
<th>Proposition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>‘Peter kommt nicht‘: ¬S [Declarative] ; {p}&gt;</td>
<td>¬p</td>
</tr>
<tr>
<td></td>
<td>‘Doch!’: S [Declarative] ; {¬p}&gt;</td>
<td></td>
</tr>
<tr>
<td>cg 3 = cg 2</td>
<td>ps 3 = Ø</td>
<td></td>
</tr>
</tbody>
</table>

The conversation departs from an initial context state (0) with zero propositions on the Table and empty individual commitment sets (DCA,B).

Then, speaker A utters a negative declarative sentence S expressing the proposition $p$ (‘Peter kommt nicht‘). This is a personal commitment. The speaker intends to turn this personal commitment into a joint commitment, as is reflected by the projected set $ps_2 = cg_2 + p$. However, speaker B denies this negative assertion on the Table by uttering $¬p$ (‘Doch!’), which is the positive counterpart of the preceding negated sentence and is uttered to prevent that $p$ becomes part of the $cg$. The conversation results in a crisis: One of the participants may retract his assertion or they agree to disagree.
For a similar treatment of denial against the background of the framework of the Information State based approach, see Karagjosova 2009b.

3.3.2 Correction
In this case, *doch* reacts to (or indicates an inconsistency with) a negation in the *cg* (see also Zeevat & Karagjosova 2009), e.g. (4):

\[ (4) \quad cg: \text{Peter isn't coming.} \]

\[ A: \text{Peter rief gerade an, er kommt } \textit{\text{doch}}! \]

‘Peter just called, he is coming after all!’

This can be represented as follows:

**0: Initial context state: A and B have agreed that Peter isn’t coming.**

\[ cg \ 1: \text{’Peter kommt nicht’} \]

\[ ps \ 1 = cg \ 1 \]

**1: A asserts ’Er kommt doch!’ relative to 0**

<table>
<thead>
<tr>
<th>¬p</th>
<th>‘Er kommt doch!’</th>
<th>&lt;S [Declarative] ; {¬p}&gt;</th>
<th>ps 2 = ¬p</th>
</tr>
</thead>
<tbody>
<tr>
<td>cg 2 = cg 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Again, the initial context state (0) entails no relevant personal commitments. However, there is a joint commitment in the cg that speakers A and B have agreed upon, namely: Peter isn’t coming (\(p\)). Against the background of this cg, speaker A places the complement of \(p\), \(\neg p\) on the Table: He corrects a negative statement that was already part of the cg.

### 3.3.3 Concession

In its concessive use, *doch* appears in the second conjunct of a sentence and establishes an anaphoric link to the first conjunct, marking an inconsistency with the proposition expressed by this conjunct (\(p\)), in that usually \(p \rightarrow \neg q\), but in this case \(q\). What this means is that one would normally not expect \(q\) given that \(p\) is the case (Karagjosova 2009a: 132). This relationship between \(p\) and \(q\) is part of the cg (world knowledge). *Doch* is synonymous with *trotzdem* (‘despite that’). Consider example (5):

(5) A: Ich war krank (\(p\)), aber ich bin \(^{\circ}\)doch gegangen. (\(q\))

‘I was ill’

‘but I went anyway’

This can be represented as follows:
0: Initial context state:
cg 1: ‘If p, than normally not q’ (p ➔ ¬q)
ps 1 = cg 1
Table empty

1: A asserts ‘Ich war krank,’ (p) relative to 0

<table>
<thead>
<tr>
<th>p</th>
<th>,Ich war krank,’&lt;S [Declarative] ; {p}&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>cg 2 = cg 1 (p ➔ ¬q)</td>
<td>ps 2 = cg 2 + p + ¬qinf</td>
</tr>
</tbody>
</table>

2: A asserts ‘aber ich bin doch gegangen’ (q) relative to 1

<table>
<thead>
<tr>
<th>q</th>
<th>,aber ich bin doch gegangen’&lt;S [Declarative] ; {q}&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>cg 3 = cg 2 + p + ¬qinf</td>
<td>ps 3 = cg 3 - ¬qinf + q</td>
</tr>
</tbody>
</table>

In this case, the initial context state (0) entails a (assumed) shared cg, consisting of the widespread assumption that a person usually doesn’t leave the house if he is ill (ill {p} ➔ not leave the house {¬q}). When speaker A utters the first conjunct with the proposition p, this proposition appears in ps 2, together with the inference ¬q. This inference (Geurts & Maier 2003) is the result of an expectation that emerges on the basis
of the first conjunct. However, the speaker ends her sentence by uttering the second conjunct, placing the unexpected proposition \( q \) on the Table. This leads to a projected downgrading of the \( cg \) (cf. \( ps \) 3) in such a way that the inference \( \neg q \) is removed from the \( cg \) and replaced by \( q \). Doch thus indicates an inconsistency between the proposition of the second conjunct and the inferred proposition that resulted from the first conjunct.

### 3.3.4 Concessive opposition

When *doch* marks a concessive opposition (the term is adopted from Karagjosova 2009a), it functions as a conjunction and marks an inconsistency between \( p \) and \( q \), but only against the background of an implicit or explicit \( QUD \), in that \( p \rightarrow r \) and \( q \rightarrow \neg r \). The \( QUD \) proposes to add either \( r \) or \( \neg r \) to the \( cg \). Thus, as opposed to the function of *doch* as in section 3.3.3, *doch* doesn’t establish an explicit link to the first conjunct, but between inferences that follow from both conjuncts. In this use, *doch* is synonymous with *jedoch*.\(^5\) E.g.

\[(6-7)\]

\(^5\) An anonymous reviewer of Hogeweg et al. (to appear) proposed that *doch* would only be a shortened form of *jedoch*. However, in several renown dictionaries and grammars of German, *doch* as a conjunction is presented as a form on its own. For that reason, I consider it to be a separate and legitimate use as well.
**Example (6)** can be represented as follows:

0: **Initial context state: QUD** (S [Interrogative])

<table>
<thead>
<tr>
<th>cg 1</th>
<th>&quot;Peter geht zur Party&quot; ; {r, ¬r}</th>
</tr>
</thead>
<tbody>
<tr>
<td>ps 1 = cg 1 + r U + ¬r</td>
<td></td>
</tr>
</tbody>
</table>
1: A asserts ‘Ich bin eingeladen’ relative to 0 (against the background of the QUD)

<table>
<thead>
<tr>
<th>p</th>
<th>‘Ich bin eingeladen’ &lt;S [Declarative] ; {p}&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>cg 2 = cg 1</td>
<td>ps 2 = cg 2 + p + r</td>
</tr>
</tbody>
</table>

2: A asserts ‘doch ich habe bereits etwas anderes vor’ relative to 1

<table>
<thead>
<tr>
<th>q</th>
<th>‘doch ich habe bereits etwas anderes vor’ &lt;S [Declarative] ; {q}&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>cg 3 = cg 2 + p</td>
<td>ps 3 = cg 3 + q + ¬r</td>
</tr>
</tbody>
</table>

The initial context state (0) consists of an implicit or explicit QUD. For the sake of clarity, the above discourse context representation starts out with an explicit QUD, which proposes to add either \( r \) or \( ¬r \) to the \( cg \) (as reflected in \( ps 1 \), U meaning ‘or’). By uttering \( p \) (‘Ich bin eingeladen’), speaker A proposes to add \( p \) to the \( cg \) and on the basis of \( p \) one might infer that \( r \) is
the answer to the QUD (as reflected in ps 2). However, speaker A completes her sentence with q (‘doch ich habe bereits etwas anderes vor’), resulting in a ps 3 consisting of p, q and ¬r. The outcome of the conversation is biased towards ¬r.

3.3.5 Reminder of cg (modal use)
In this case, the proposition containing (unstressed) doch relates to a proposition that is already part of the cg (Zeevat & Karagjosova 2009). As I already illustrated by means of example (1) in the introduction of this thesis, many different effects of unstressed doch can be distinguished (reminding either an interlocutor or the speaker herself of something that is assumed to be common knowledge, to add emphasis, to express anger etc.). Moreover, doch is compatible with several sentence types, e.g. declaratives, imperatives, exclamatives, interrogatives, and it appears in fixed constructions, e.g. the counterfactual wish construction, as in example (11). Their overall discourse function, however, is the same. Doch doesn’t mark an inconsistency between the literal content of the utterance containing doch and the cg, but it marks that the fact that the speech act is made is incompatible with the cg. Remember that Stalnaker (1978) proposed that uttering an assertion only makes sense when the proposition expressed by that assertion isn’t already part of the cg (e.g. (8)). It is
assumed here that a similar effect can be identified when *doch* is used in imperatives, e.g. (9), and interrogatives, e.g. (10) (Hogeweg et al. (to appear)). In (9), the hearer already knows that the speaker wants him to stop. In fact, the speaker shouldn’t have had to say it again. In (10), the answer of the question is already known, the speaker shouldn’t have had to ask it again.

(8) [declarative/exclamative]
cg: Berlin isn’t situated on the Rhine
A: Berlin liegt *doch* nicht am Rhein!
‘Berlin isn’t situated on the Rhine!’

(9) [imperative]
cg: You should behave
A: Hör *doch* auf!
‘stop that!’

(10) [interrogative]
cg: His name is….
A: Wie hieß er *doch*?
‘what was his name again?’

(11) [counterfactual wish constr.]
cg: One should do his homework
A: Hätte er *doch* seine Hausaufgaben gemacht!

‘I wish he had done his homework’

This can be represented as follows:

**0: Initial context state**

cg 1: pi

ps1 = cg 1

**1: A asserts pi relative to 0**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>p1</strong></td>
<td>‘<em>Berlin liegt doch nicht am Rhein.</em>’</td>
<td>&lt;S [Declarative] ; {p}&gt;</td>
</tr>
<tr>
<td><strong>p2</strong></td>
<td>‘<em>Hör doch auf!</em>’</td>
<td>&lt;S [Imperative] ; {p}&gt;</td>
</tr>
<tr>
<td><strong>p3</strong></td>
<td>‘<em>Wie hieß er doch?</em>’</td>
<td>&lt;S [Interrogative] ; {p}&gt;</td>
</tr>
</tbody>
</table>

As we can see, sentences containing modal *doch* do not propose to add anything to the cg (which already contains *pi*), they only remind or ask someone about what is already (assumed to be) part of the cg.
In the next section, I will discuss the Dutch translational equivalents of the uses of *doch* discussed in this section.

### 3.4 Dutch equivalents of German *doch*

As illustrated in section 3.3, German *doch* indicates an inconsistency either with an issue on the Table (corrective answering particle, concessive opposition), with a proposition that is already part of the *cg* (correction, concession) or between the appropriateness conditions of a certain speech act and the *cg* (modal).

As this study deals with the acquisition of German particles by Dutch learners of German, it is interesting to take a short look at the Dutch particles that are used in the contexts as proposed for *doch*. Does Dutch also have one particle to fulfill all the different functions as described for German *doch*? As we will see, this is not the case. Dutch makes use of the particles *wel* and *toch*.

Doch as a corrective answering particle can best be translated by Dutch (*ja*)wel, as illustrated in (12a-b). *Doch* and *jawel* can form an utterance on their own.

(12) **QUD:** Is Peter coming?

a. A: Peter kommt nicht.

   ‘Peter isn’t coming’
Dutch *wel* mostly has to be part of a clause, as in (13a). Interestingly, if we would literally translate this sentence into German, *wel* would have to be translated by *wohl*, as in (13b):

(13) **QUD:** Is Peter coming?

a. A: Peter komt niet.
   ‘Peter isn’t coming’
   B: Peter komt ºwel!
   ‘Yes he is!’

b. A: Peter kommt nicht.
   ‘Peter isn’t coming’
   B: Peter kommt ºwohl!
   ‘Yes he is!’

*Doch* in its corrective function signaling an inconsistency with the *cg* can be translated by Dutch *toch*, as illustrated in (14a-b):
Whereas the proposition of the sentences in e.g. (12a-b), (13a-b) and (14a-b) is the same, regardless of the particle that appears in them, using one particle or the other is decisive for the way in which the current assertion is interpreted in relation to the pragmatic or situational context. If a speaker wants to relate an utterance to an issue on the Table, in Dutch she would use *(ja)wel* (cf. 12b and 13a), whereas if she wants to relate an utterance to the cg, she would use *toch* (cf. 14b), expressing the denial of an expectation which was based on the cg. I will show that a similar pattern can be attested in the remaining three uses.

*Doch* in its concessive use, signaling an inconsistency with the cg, can again best be translated by Dutch *toch*. This is illustrated in examples (15a-b):

(15) \textit{cg}: ‘if } p \text{ (e.g. if you’re ill), than normally } \neg q \text{ (e.g. you don’t leave the house)}’

a. A: Ich war krank, aber ich bin \textit{\textdegree}doch\textit{\textdegree} gegangen.

   ‘I was ill, but I went after all’
b. A: Ik was ziek, maar ik ben \(^9\)toch gegaan.

‘I was ill, but I went after all’

Of course, it would not be ‘wrong’ to say ‘Ik was ziek, maar ik ben \(wel\) gegaan’, but \(wel\) is used in a (slightly) different communicative context than \(toch\). \(Toch\) (or \(doch\)) strongly indicates that the assertion expressed by the conjunct in which they appear \((q)\) stands in contradiction to a previous assumption in the common ground \((p \rightarrow \neg q)\). Using \(wel\) doesn’t require the presence of a previous assumption of that kind in the \(cg\).

Translating \(doch\) indicating a concessive opposition is less straightforward. In line with the pattern attested earlier, it can be translated by \(wel\), as in (16b).\(^6\) However, the Dutch would probably prefer the adversative conjunction \(maar\) (‘but’). We could ask ourselves if this also holds for German, because the German adversative conjunction \(aber\) (‘but’) will probably also be the more frequent (and less formal) use in this context.

(16) QUD: Is Peter going to Erica’s party?

a. A: Ich bin eingeladen, \(doch\) ich habe bereits etwas anderes vor.

‘I am invited but I already have other plans’

---

\(^6\) In Dutch, \(doch\) would be correct as well, but it is not colloquial.
   ‘I am invited but I already have other plans’

The modal use of *doch* as a reminder of the *cg* is – in most cases – translatable by Dutch *toch*. However, both in German and in Dutch, other particles exist to express similar intentions. The examples (17-21) illustrate this:

(17)  
  a. A: Berlin liegt *doch* nicht am Rhein!
      ‘Berlin isn’t situated on the Rhine!’
  b. A: Berlijn ligt *toch* niet aan de Rijn!
      ‘Berlin isn’t situated on the Rhine!’

(18)  
  a. A: Hör *doch*/schoon auf!
      ‘Stop it!’
  b. A: Hou *toch* op!
      ‘Stop it!’

(19)  
  a. A: Wie hieß er *doch*?
      ‘What was his name again?’
  b. A: Hoe heet hij *toch* (ook alweer)?
      ‘What was his name again?’

Causal construction:
(20)  a. A: Er ist sehr reich, er ist/ist er doch/ja der König.
     ‘He is very rich, after all, he IS the king’

     b. A: Hij is heel rijk, hij is toch/immers de koning.
        ‘He is very rich, after all, he IS the king’

Counterfactual wish construction:
(21)  a. A: Hätte er doch/bloß/nur seine Hausaufgaben gemacht!
     ‘If / I wish he had (only) done his homework’

    b. A: Had hij toch/maar zijn huiswerk gemaakt!
       ‘If / I wish he had (only) done his homework’

In general, we can conclude that Dutch toch functions as a marker of a relation with the cg, whereas Dutch wel is used as a marker of a relation with issues on the Table. As we have seen, German doch can be used both as a marker of cg and of issues on the Table. This cross-linguistic perspective shows us that the particles are thus very similar, but that there are also some subtle differences. Dutch learners of German might experience some difficulties in understanding that German doch can mark both relations with the cg and with issues on

\footnote{It is important to note that these conclusions only relate to the uses of wel and toch that are considered to be translational equivalents of German doch.}
the Table, whereas in Dutch they would rather use two particles. An interesting question is whether this difference would lead to difficulties or whether for example the semantic and phonetic similarity of *toch/doch* would facilitate using and acquiring (certain uses of) *doch*. Although this isn’t the main focus of the current study, the results may shed light onto this question.

In the next chapter, some studies on both the first and second language acquisition of particles will be discussed. As we will see, all studies take the possible influence of the native language into consideration.
4. Earlier studies on the first and second language acquisition of particles

Research on both first and second language acquisition of particles is rather scarce. This might seem odd if one takes into account the rather substantial amount of descriptive literature on particles. There are, however, some studies that are worth noting. After having discussed the most relevant studies (4.1 and 4.2), the hypothesis for the current study will be introduced (4.3).

4.1 First language acquisition of particles

Hogeweg (2009) investigated the L1 acquisition of the several uses of the Dutch particle wel and compared the frequency of usage by children with the frequency of usage by adults. She found a negative correlation between semantic strength\(^8\) and frequency: In case of the adults, the usage with the clearest semantics (e.g. in the corrective use that denies an explicit negation) is the least frequently used category, whereas the usage with the weakest semantics (e.g. implicit contrast) appeared most frequently. In case of the children, the exact opposite pattern was attested. Hogeweg concludes that

\(^8\) A word ‘A’ is semantically stronger than word ‘B’ if word ‘A’ contains more semantic features. As a result, word ‘A’ has a clearer and less context-dependent meaning.
children seem to acquire the strongest use with more ease and argues that, despite their high frequency in the input, it probably takes children more time to acquire semantically weak uses because of their context-dependence: They appear in a variety of contexts and their precise effect depends on the context at hand. As experience with these uses grows, the child will become more and more able to grasp their exact function.

A similar study was conducted by Ramachers (2010). I conducted a corpus analysis on the acquisition of the polyfunctional German particles *doch* and *schon* by a monolingual German child, Caroline. For the current study, the results on *doch* are particularly important. Therefore, *schon* will be left out of consideration. I found that *doch* as an answering particle (see section 3.3.1) was acquired earliest (by 1;04), whereas *doch* as a modal particle (see section 3.3.5) was acquired considerably later and last (by 2;06). *Doch* as a connector (which is, in the way it is used by the child, comparable to the ‘corrective’ use in this study, see section 3.3.2) emerged somewhere in between (at 2;02), whereas *doch* in its conjunctive function (see section 3.3.4) didn’t appear in the child data at all (age range: 0;10 - 3;03).

Additionally, I attested a similar negative relationship between semantic strength and frequency: Whereas Caroline’s mother used *doch* as an answering particle in only 8.82% of the cases,
the modal use accounted for 86.10% of the cases. Caroline’s data revealed the exact opposite: She used *doch* as an answering particle in 52.55% of the cases and *doch* as a modal particle in 36.94% of the cases. I explain this pattern from a functionalist perspective: Both input quantity and input quality must be taken into consideration. Whereas frequency might play a role during later stages of development, initially the child data yield a different frequency pattern than the adult data. If we look at its quantitative features, *doch* as a modal particle might be at an advantage, since it is very frequent in the input. Qualitatively, however, it isn’t a very salient use, neither from a semantic nor from a syntactic or acoustic perspective. The opposite holds for the stressed and sentence-initial (or syntactically autonomous) corrective answering particle. Moreover, because using modal particles in a correct and appropriate way requires some amount of pragmatic competence (a.o. the ability to take into consideration the perspective, knowledge and intentional state of the interlocutor and having some mastery of cultural conventions in the speech community), it might not be so strange that they emerge quite late.

4.2 Second language acquisition of particles
Given the fact that languages differ both in the number of particles they have and in the ways their meanings or
functions have developed, they are supposed to constitute problems for non-native speakers (cf. Weydt 1981; Foolen 1986). A few studies on the second language acquisition of particles will be discussed. I will start with some studies concerning the acquisition of German particles. After that, a study on the acquisition of particles in Chinese and some studies on the acquisition of particles in Dutch will be addressed. Zimmermann (1981) argues that the learning problem is often caused by the lack of an equivalent concept in a learner's native language. The existence of such an equivalent would facilitate learning in the sense of positive lexical transfer. As I will show later, this is a rather common point of view. However, regarding the comparison of German doch and Dutch toch and wel, these particles can only partially be considered equivalents. In some cases they overlap, in some they do not. As I mentioned in section 3.4, an interesting question is how strongly the similarities and differences influence the acquisition process of Dutch learners of German. Husso (1981), in cooperation with Harald Weydt, performed a test that, to some extent, is similar to the experiment in the present study. She developed a questionnaire, consisting of scenes describing everyday situations. At the end of each scene, a sentence with a gap was presented which learners had to fill by choosing from a list of modal particles (a.o. ja,
The participants were also allowed to fill in combinations of particles. The scenes provided as much background information as possible in order to provide a solid basis for interpretation. The scenes were read aloud for the participants. First, the test was carried out with native speakers of German to find out what particles they would actually choose. Then, different groups of foreign learners of German were tested. Their L1s were a.o. Finnish, Spanish, Italian and Greek.

Interestingly, Husso (1981) distinguished between learners with integrative motivation and learners with instrumental motivation\(^9\) to learn German and expected that the use of modal particles between these groups would differ as a result of this factor. However, this hypothesis was not supported. Due to the nature of the test – learners are forced to choose one or more particles – all different groups of foreign learners used some particles, a.o. *aber, denn, auch* and *doch*, quite frequently. The question is, as Husso (1981) states, whether

\(^9\) *Integrative motivation:* ‘Interest in learning an L2 because of a desire to learn about or associate with the people who use it, or because of an intention to participate or integrate with the L2-using speech community. Affective factors are dominant’ (Saville-Troike 2006: 190).

*Instrumental motivation:* ‘Perception of a practical value for learning an L2, such as increasing occupational opportunities, enhancing prestige and power, accessing scientific and technical information, or passing a course in school’ (Saville-Troike 2006: 190).
they would use them in a similar way in spontaneous speech as well. Despite the fact that they were able to choose some particles quite often, the learners made a lot of mistakes. Husso (1981) proposes that these mistakes are probably due to the influence of the mother tongue and the amount of contact with competent natives. Steinmüller (1981) investigated the uncontrolled acquisition of German by Turkish migrants in Berlin. He noticed that these foreign learners of German mainly acquired those elements whose meaning and function are clear and important in their daily lives. Initially, their perception is selective and because of this, other linguistic elements (a.o. particles) can be overlooked (cf. Vorderwülbecke 1981). Steinmüller, referring to Krivonosov (1977), argues that (modal) particles are particularly non-salient (and therefore easily overlooked) because of the fact that they do not contribute to the propositional content of an utterance and because of their facultative nature. However, Steinmüller (1981) doesn’t argue that the late acquisition of modal particles can be considered a general or universal trend, because it hasn’t been proven yet that modal particles are always acquired last. Studies that compare very similar languages (like Dutch and German) are needed before one can make general statements about that. Furthermore, Steinmüller (1981) claims that the acquisition of modal particles is not so much dependent on the mastery of
certain grammatical abilities, but much more on the (frequency and variability of) appropriate conversational contexts in the presence of native speakers of the target language. Regular confrontation with particles in appropriate contexts could lead to an automatization of particle usage in the learner.

Another scholar that devoted herself to the description of German particles in favor of L2 learners is Martina Möllering (2001, 2004). She puts emphasis on the problems with the comprehension and correct usage of modal particles. Their complex meaning, their (both linguistic and situational) context dependency and various functions are factors of major importance. Learners of German as a foreign language often do not properly understand modal particles. Moreover, they do not seem to use them as often as native speakers (e.g. Möllering & Nunan 1995; van Balen et al. 2010). This quantitative difference between natives and second language learners is generally agreed upon. Research on particle acquisition in both instructional and non-instructional settings has shown that learners find it hard to grasp the communicative value of particles and that it takes a long time to acquire the various functions of particles (and their homonyms in other word classes) (cf. Weydt 1981; Möllering & Nunan 1995; Cheon-Kostrzewa & Kostrzewa 1997a,b). Möllering (2001) states that explicit instruction of the
different particle functions embedded in various appropriate contexts and with regard to particular collocations could help
the acquisition process. This procedure would make students more aware of the exact communicative importance
of particles. It is widely known that not using them or misusing them might lead to misunderstandings and can unmask a
person as a non-native speaker (cf. Zimmermann 1981). The correct and competent use of particles is therefore often taken
as an indicator of advanced levels of L2 proficiency.

Möllering (2001: 136) conducted a quantitative analysis using 4 different corpora (three available through IDS\textsuperscript{11}, one
consisting of private telephone conversations, BRO; Brons-Albert 1984) to investigate the frequency of occurrence per
1,000 words for a selection of German particles (in all their uses). Her most important findings were that \textit{ja} occurs most
frequently (19.5 occurrences per 1,000 words), followed by \textit{auch} (9 occurrences), \textit{aber} (6), \textit{mal} (4.5), \textit{doch} (3) and \textit{schon}
(3), and \textit{wohl} occurs less than once per 1,000 words. Moreover, Möllering (2001) reports that a.o. \textit{ja}, \textit{doch} and
\textit{schon}, which are particles that are often used with a modal function, occur with a particularly high frequency in the BRO

\textsuperscript{10} Collocations are frequent co-occurrences of a certain word with other words or certain syntactic structures.
\textsuperscript{11} \textit{Freiburger Korpus} (discussions, interviews etc.), \textit{Dialogstrukturenkorpus} (interviews, radio-television broadcasts)
and \textit{Pfeffer-Korpus} (interviews about 25 different topics).
corpus. This is probably due to the fact that this corpus contains the most natural form of spontaneous speech and the highest level of informality and familiarity, which are important situational characteristics for the frequent use of modal particles (Hentschel 1986).

Xiaohong Wen (1995) investigated and compared elicited interlanguage constructions with the Chinese particle *le* of 8 beginning and 6 more advanced English learners of Mandarin Chinese. The beginning learners had been learning Chinese for 14 months, whereas the more advanced learners had been learning the language for 26 months. The participants’ speech was recorded and transcribed during interview sessions and picture description tasks.

The Chinese particle *le* can be classified as having two functions: A perfective aspect marking verb suffix (indicating that the action has been completed) and a sentence-final modal particle (having several meanings, diverging in their semantic specificity and pragmatic functions, which are highly discourse dependent).

In formulating predictions and hypotheses, Wen (1995) takes a study by Erbaugh (1985) on the first language acquisition of

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12 Intermediate states or interim grammars of learner language as it moves toward the target L2 (also called learner varieties) (Saville-Troike 2006: 190).
Chinese two-year-olds as a starting point. Erbaugh (1985) showed that between 80% and 90% of her subjects’ uses of *le* referred to an event in the past and are thus markers of perfective aspect. Subsequently, Wen (1995) posits the following questions: Will one function of *le* be acquired before the other and, if so, what features could account for this order? He hypothesizes that beginning students will differ from more advanced students in the frequency of their correct use. Moreover, he suggests that the perfective aspect marker, having the more unmarked and simple meaning and function as opposed to the more marked modal use, will be learned first. He found that students at the beginning and more advanced level did not significantly differ in the frequency of correct use of the verb suffix –*le*. However, he did find a significant difference in the frequency of correct use of the modal particle *le* between beginning and more advanced learners.

Wen (1995) concludes that the functions of Chinese *le* are not learned in the same way. Following from the observation that both uses were consistently used in only certain sentence patterns, he argues that subjects heavily relied on local context cues and semantics. The findings that both Chinese children and second language learners of Chinese acquire the perfective aspect marker *le* earlier than sentence-final modal *le* seem to indicate that the
latter is more difficult. Wen (1995) proposes that semantic concreteness and context (in)dependence play an important role: the meaning of sentence-final *le* is not very concrete and can vary across contexts. Additionally, the fact that the modal particle can in fact be omitted without causing an ungrammatical structure makes it even more difficult for learners to grasp the exact functions of this use, which are mostly of a pragmatic nature. Wen (1995) concludes that structure, meaning and function are highly interdependent in interlanguage.

Finally, it is worth mentioning that Wen (1995) also takes transfer effects into account. The fact that English doesn’t make use of modal particles at all would make it more difficult to learn Chinese. As I already explained before, in the current study, the situation is somewhat different, in that Dutch and German use their modal particles *toch* and *doch* in a comparable way. The question is, however, which situation is more difficult: Having a L1 with particles and learning a L2 that makes use of particles too, both in comparable and in different ways (Dutch > German), or starting from a L1 with no particles and learning a (typologically very different) L2 with particles (English > Chinese)? As I mentioned before, although this isn’t the main focus of this study, the results might shed some light onto this issue and provide promising suggestions for future research.
More recently, Caspers & Van der Wouden (2008) compared the perception of the modal particles\(^{13}\) *wel* (‘rather’, ‘quite’), *zeker* (‘probably’) and *toch* (indicating ‘expected confirmation’, comparable to the uses of *toch* that I discussed in section 3.4) by native speakers and second language learners of Dutch (L1s: Mandarin Chinese, Cantonese and Indo-European languages). They were all first year students, studying Dutch at Leiden University. As in German, modal particles in Dutch often have (stressed) counterparts in one or more other word classes (see section 3.4). Caspers & van der Wouden (2008: 123) distinguish between modal (22a) and adverbial (22b) uses of the same particle:

(22) a. [adverbial]

\[\text{Hij \ komt \ ZEKER \ niet.} \]
\[\text{He \ comes \ CERTAINLY \ not} \]
\[\text{‘He certainly won’t come’} \]

b. [modal]

\[\text{Hij \ KOMT \ zeker \ niet.} \]
\[\text{He \ COMES \ [part] \ not} \]
\[\text{‘I presume he won’t come’} \]

\(^{13}\) ‘used as a cover term for a group of high-frequent words found in real-life discourse in languages such as German, Dutch and classical Greek, used to express meaning nuances in various areas like modality, evidentiality and aspect’, (Caspers & van der Wouden 2008:121).
In their experiment, subjects were presented with a context sentence and two stimulus sentences, e.g. (22a-b), differing only in the presence or absence of stress on the target word, making it an adverbial or modal use. The context sentences were formulated in such a way that they would be in line with a following stimulus sentence containing either an adverbial use or a modal use of the particle, e.g. (23a-b):

(23)  
  a. [adverbial]  
    Je hoeft geen stoel voor Sander klaar te zetten.  
    ‘You don’t have to put a chair out for Sander’
  
  b. [modal]  
    De stoel van Sander is nog leeg…  
    ‘Sander’s chair is still empty…’

Caspers & van der Wouden (2008) hypothesized that non-native speakers of Dutch would have problems with the distinction between adverbial and modal uses but mostly with the modal uses, whereas native speakers of Dutch would perform well on both conditions. Overall, native speakers of Dutch had a mean score of 90% correct responses, whereas the non-natives had a score of 57% correct responses.
Interestingly, according to Caspers & van der Wouden (2008), the non-natives seem to be most comfortable with *wel* in a non-modal context (87% correct), which is the exact opposite of *niet* (‘not’) and therefore highly contrastive and salient (comparable to *doch* as a corrective answering particle); the difference in responses between modal and non-modal context is significant. For *zeker*, the responses of the non-natives do not differ across contexts: Both types seem to be hard. For *toch*, there was a significant difference in the number of correct responses per context, but in the opposite direction: In the modal context (comparable to *doch* as a reminder of *cg*), 66% of responses were correct, whereas in the non-modal contexts (partially comparable with both *doch* in its corrective and concessive use) only 35% of responses were correct. As an explanation, Caspers & van der Wouden (2008) propose input frequency. Modal *toch* might be more frequent in spoken Dutch.

Van Balen et al (2010) report on elicited speech data of Spanish L2 learners of Dutch with different proficiency levels. Their participants had been living and working in the Netherlands. They conclude that both the non-modal and modal use of *wel* is easier, used more frequently and acquired earlier than *toch*. *Zeker* is acquired last. In general, van Balen et al. (2010) show that the frequency of use of modal particles grows alongside with the student’s proficiency level and that
there seem to be similar developmental stages across participants. However, van Balen et al (2010) emphasize that the results cannot be generalized before more research is conducted among learners with several L1’s.

As may have become clear, research on the first and second language acquisition of particles and their different uses often shows that the modal uses are the most difficult to acquire: They are generally acquired later and there seems to be some relationship between the development of the overall proficiency level in the L2 and the frequency of correct use. These findings have important implications for the hypothesis posed in the current study.

4.3 Research questions and hypothesis

The research questions that are most important in this study are:
Can we detect differences in the correct use of the several uses of *doch* as provided in chapter 3 when comparing different proficiency groups and if so, how can we explain this?

Seeing the previous research on both the first and second language acquisition of particles, it is likely that the modal use
of *doch* is acquired rather late. My hypothesis is therefore that more advanced learners of German use *doch* in its modal use in a correct way more frequently than less advanced learners of German. I expect to find a difference between the mean percentages of correct use dependent on the proficiency level. One important question that I have to clarify is how I intend to measure a person’s proficiency level. Wen (1995) took the number of months that his participants studied the language under investigation as a measure of their proficiency level. I will use a comparable measure, namely ‘year of study’, distinguishing between Bachelors 1, 2 and 3 and Master. However, as I already mentioned before, (modal) particles are elements of spoken language and rather disregarded in education. For this reason, it may be wise to consider the amount of contact a person has with native speakers of the target language outside the educational environment. Consequently, I also took ‘amount of contact with natives’ into account as a possible measure of proficiency level, distinguishing between ‘never’, ‘sometimes’, ‘regularly’ and ‘often’.

I want to emphasize that the hypothesis on modal *doch* is based on previous research that mainly addressed languages that are typologically distant and/or dissimilar with respect to their use of particles. For English learners of Chinese, for example, learning to use modal particles has proven to be
rather difficult because of the lack of modal particles in the native language, as Wen (1995) argues. The same holds for children acquiring their native language, for they also start out from an initial state without particles, so to speak.

The case of Dutch and German is quite different. The Dutch do start out with a system that contains modal particles and as we saw, German modal *doch* and Dutch modal *toch* behave quite similar. It is not yet clear how this will influence the acquisition of German *doch*.

The results of this study will have to reveal whether the process of learning particles in a second language that is typologically close to the first language is different from this learning process in a situation involving typologically distant languages, like English and Chinese, or the situation of children acquiring their first language.
5. Method

5.1 Introduction
As formulated in section 4.3, the goal of this study is to investigate whether there is a difference in the correct use of the particle *doch* when comparing Dutch learners of German of different proficiency levels. To test this, I decided to distribute an online questionnaire, using NetQ ([http://netq.nl](http://netq.nl)), that consists of several contexts with deleted words. These contexts have been carefully designed in order to elicit one of the uses of *doch*. The following sections will elaborate on this method in more detail.

5.2 Assessing language proficiency with the Cloze test
In the Cloze procedure, participants read discourse passages from which words have been deleted and replaced by blanks. The participants must decide which word or segment fits best in the blank space. This procedure is considered an effective means of assessing both first and second language proficiency (Anderson 1976).

We can distinguish between a standard random deletion cloze test, where every \( n \)th word is deleted and a test with a more discrete orientation, where e.g. only articles or prepositions are left out. In the former, a variety of linguistic components
can be tested at the same time (Hale et al. 1988). Cloze tests typically focus on language use and participants are required to read and comprehend a substantial amount of discourse. The test therefore also taps into reading and receptive writing proficiency (cf. Hale et al. 1988, Oller 1979, O’Reilly & Streeter 1977). Two answer formats are possible: Open (in case of a completion Cloze test) or multiple choice. Scholars generally agree upon the assumption that, independent of the answering format, both types of testing provide similar information (e.g. Hinofotis & Snow 1978). The problem with open answers, however, is that they have to be scored, which is rather time consuming.

Our test, a multiple choice cloze test, is in fact a combination of both discrete and more general measures of proficiency: we are primarily concerned with the use of the particle *doch*. Since only particles are left out in case of the test-contexts, it is a rather discrete measure. However, particles can never be regarded in isolation: In order to choose the correct particle, the whole discourse context must be understood and taken into consideration by the participants, turning the test into a more general measure of discourse comprehension and pragmatic proficiency. We provide participants with representative contexts that describe natural, everyday situations and conversations. Of course, some items may
require understanding of only a small portion of context surrounding the deletion (in case of the answering particle context, where the particle refers to an explicit negation in the preceding utterance), whereas other items require an understanding of a larger portion of context (e.g. in case of the concessive opposition context, where some additional ‘reasoning’ is involved).

5.3 Materials: The questionnaire

5.3.1 The structure of the questionnaire
At the beginning of the questionnaire, respondents were provided with a general description of the goal of the study and with a few short instructions. In total there were eight versions of the questionnaire, each consisting of 9 test- and 8 filler-contexts. Before participants went through these contexts with deleted words, they had to answer some personal questions. These questions pertained to age, sex, education, year of study, contact with native speakers outside their education or job and so forth. It is important to mention that the questionnaire was simultaneously used for another study that tested the use of the particle *wohl* and more importantly, that aimed at different target groups. Some of the personal questions might not seem useful for the current study, but they were added because of their importance for the study
pertaining to *wohl*. The questions that were of main importance for the current study are those pertaining to education, year of study, contact with natives and – perhaps less important but still quite interesting – the assessment of the individual competence in the target language.

5.3.2 Test items
As illustrated in chapter 3, *doch* can be used in five different ways. Four test contexts per use were compiled, which resulted in a total of twenty contexts for *doch*. Participants had to choose between four possible answers: *doch*, *ja*, *schon* and *wohl*. Example contexts are given in (24-25):

(24) **Concession**: Nicky kommt aus der Schule, sie weint. „Was ist denn los?“ fragt ihre Mutter besorgt. „Ach Mama, wir wohnen hier jetzt schon 4 Jahre und ich habe schon so viele Kinder kennen gelernt, aber […] fühle ich mich noch immer alleine.

Nicky is coming back from school, she’s crying. “What’s the matter?” her mother asks worried. “O mom, we’ve already been living here for 4 years now and I’ve met so many children, but I’m still feeling alone.”
(25)  *Answering particle:* Frau Jansen ist beim Bäcker. Sie schaut sich um und stellt fest, dass keine Kirschtorten mehr da sind. „Haben Sie keine Kirschtorten mehr?“ fragt sie enttäuscht. […], antwortet die Verkäuferin, „gerade frisch gebacken. Sie stehen noch hinten zum Abkühlen.“

Mrs. Jansen is at the bakery. She looks around and notices that there are no cherry pies left. “Are you out of cherry pies?” she asks disappointed. “We’re not”, the saleswoman answers, “we just baked them. They are still in the back to cool down.”

The four contexts per use were distributed across four different versions, together with four different contexts for the different uses of *wohl*. To control for order effects, the four versions were all reversed in order to get a b-version with the exact opposite order, resulting in a total of eight versions.

5.3.3  *Filler items*
In each version, eight filler contexts were added that functioned as distracters. These filler contexts were the same across versions and consisted of two contexts that fitted the particle *ja*, two contexts that fitted the particle *schon* and four contexts that fitted one of the four following prepositions: *An,*
in, nach and zu (all in a directional sense, meaning to), consider (26-27):

(26) *Ja:* Roland war gestern mit dem Auto auf der Landstraße unterwegs. Zufällig hat er einen Autounfall beobachtet und berichtet seinem Freund Alexander hiervon: „Mehrere Autos sind ineinander gefahren! [...] sogar ein Motorrad war in den Unfall verwickelt!“

Roland was driving on a country road. By chance, he witnessed a car crash and he is telling his friend Alexander about it: “Multiple cars ran into each other. Even a motorcycle was involved!”


Katrin, Horst and Jana are meeting at the airport. Jana is in a particularly good mood. “Off to Paris!” she cries out loud.

For the complete, final questionnaire, see Appendix 1.
5.4 Participants and procedure

5.4.1 Pretest
First, native speakers of German were approached and asked to fill in the questionnaire in order to find out what particles they choose (cf. Husso 1981). The questionnaire was completed by 62 respondents, including 3 participants that didn’t finish the entire questionnaire. The participants were mainly university students from all over Germany. The results of the pretest will be discussed in section 6.1.

5.4.2 Main experiment
Subsequently, after having processed the results from the pretest (see section 6.1), teachers of the German departments of the Dutch universities of Nijmegen, Amsterdam, Utrecht, Leiden and Groningen were contacted and informed about the goal and importance of the experiment. They were asked to send an e-mail to their students. Because I intend to compare various proficiency levels – taking year of study as an indicator of language proficiency – I urgently requested the teachers to make sure that students from all years were contacted. The e-mail that was sent to the students contained a link to a website http://www.let.ru.nl/ciw-bc/webenquetes/sr. On this website, a button ‘naar de vragenlijst / to the questionnaire’ was provided. Once a participant clicked this button, he/she
would automatically be guided towards one of the eight versions of the questionnaire. This was regulated by means of a program that counted the number of participants that clicked the button and that guided participant 1 to version 1a, participant 2 to version 1b, participant 3 to version 2a and so forth, so that the ninth participant would be allocated to version 1a again.

I will provide the results of the main experiment in section 6.2 and discuss them in the final chapter of this thesis (7).
6. Analysis and results

6.1 Analysis, results and implications of the pretest with native Germans

As mentioned in section 5.4, a pretest was conducted with a group of 62 native speakers of German. This already yielded some interesting results, which were used to further refine the contexts before sending them to the Dutch test group.\(^1\)\(^4\) A summary of the findings can be found in Appendix 2. The contexts that were altered after the pretest will be discussed in more detail below. To gain some certainty about the appropriateness of the altered contexts, I sent these contexts to another random group of native Germans. For practical reasons, I didn’t use an entire questionnaire, but sent the altered contexts together with the four possible answers (\textit{doch, ja, schon, wohl}) by e-mail or by a message on social networks like StudiVZ (www.studivz.net) or Facebook (www.facebook.com).\(^1\)\(^5\)

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\(^1\)\(^4\) Contexts were altered in case of a mean percentage of correct answers of less than 75%.

\(^1\)\(^5\) The number of responses to this ‘second pretest’ was different from the number of responses to the actual pretest, which is a result of the different methods that were used for the distribution of the contexts.
To one of the contexts that was designed to elicit *doch* in its modal use in version 1 (consider example (28)) native speakers of German repeatedly answered *schon*. Only 38% of the respondents (total n = 13) answered *doch*.

(28) **Caroline bettelt unaufhörlich um Schokolade.** “Hör [...] auf!“, erwidert ihre Mutter.
   Carolyn is constantly begging for chocolate. “Stop it!” her mother answers.

In the remaining three contexts that were meant to elicit modal *doch*, natives did answer *doch*, so we can be confident that answering *schon* upon (28) is the result of the context or sentence type (imperative) at hand. In fact, the use of *schon* can be explained rather easily. Just like *doch*, it can be used with the intention to speed up the execution of a certain action (Métrich & Faucher 2009: 758). However, *schon* expresses less irritation than *doch*. The context might not have caused the respondents to experience enough irritation in order to use *doch* in an appropriate way. Therefore, I reformulated the context in such a way that the behavior of the child would be more unwelcome, as in (28’). This should guide participants towards answering *doch*:
Caroline bettelt unaufhörlich um Schokolade. „Hör auf!“, sagt ihre Mutter, die gerade am Telefon ist. Caroline macht aber weiter, als hätte sie ihre Mutter nicht gehört. „Jetzt hör [...] endlich auf!“, ruft ihre Mutter daraufhin verärgert.

Carolyn is constantly begging for chocolate. “Stop it!”, her mother says, who is at the phone at that moment. However, Caroline continues, as if she hadn’t heard her mother. “Can you PLEASE stop that now?!”, her mother shouts.

However, after having sent this adjusted context to a new group of native Germans, still 50% chose schon (n = 6). Apparently, in a situation as in (28′) both doch and schon are equally suitable. This made me decide to design an entirely different context, as illustrated in (29):

Caroline, 7 Jahre alt, berichtet ihrem Großvater über alles, was sie letzte Woche in der Schule gelernt hat. „Wir haben die Hauptstädte aller europäischen Ländern gelernt!“, ruft sie aufgereggt. „Berlin ist die Hauptstadt Deutschlands! Und London ist die Hauptstadt der Niederlande?! Großvater lacht: „Aber Caroline, London ist […] nicht die Hauptstadt der Niederlande?! Das ist Amsterdam!“
Carolyn, 7 years old, tells her grandfather about everything she learned in school last week. “We learned the capital city’s of all European countries!” she yells excited. “Berlin is the capital of Germany, and London is the capital of the Netherlands!” Her grandfather laughs: “But Carolyn, London isn’t the capital of the Netherlands, that’s Amsterdam!”

Again, I sent the context to a group of native Germans (n = 22). This time, *doch* was chosen as the most suitable answer by all 22 participants (100%). Consequently, I decided to replace context (28) by (29).

Another context that didn’t evoke enough *doch*-answers was (30), as included in version 2:


Carl is teaching politics at college. He is talking about the incident with the minister of defence Guttenberg. The minister was divested of his
doctorate. Suddenly a student says: “He’ll manage without his title, after all, he is a politician!”

From the fourteen respondents, 71% chose *doch*. The remaining 29% chose either *ja* (n = 3) or *schon* (n = 1). The use of *schon* can be interpreted as temporal. However, because of the fact that only one respondent chose it, I suggest that it will not be of major influence on the Dutch participants’ choices. However, some explanation is needed for the use of *ja* in this context. Just like modal *doch*, it can be used to remind someone of something in the sense of ‘after all’ (‘you should know’) (cf. Métrich & Faucher 2009). As in example (28) above, where *doch* signals a higher amount of irritation than *schon*, I suggest that *doch* in (30) again modifies the intention (illocutionary force) of the utterance in a (slightly) stronger way than *ja*. Again, I suggest that a small adaptation of the context could guide participants to choose *doch* more often. Compare example (30’):

(30’) Karl unterrichtet Politik an einer Hochschule. Er erzählt von einem Vorfall von Verteidigungsminister Guttenberg. Dem Minister wurde sein Doktortitel aberkannt. „Was haltet ihr davon?“, fragt Karl die Studenten. Max antwortet: „Der wird es auch ohne
Titel schaffen.“ „Wieso?“ fragt Karl. „Er ist […]
Politiker!“, erwidert Max.

Carl is teaching politics at college. He is
talking about the incident with the minister of
defence Guttenberg. The minister was divested of his
doctorate. “What do you think of that?”, Carl asks the
students. Max answers: “He’ll manage without his
title.” “And why is that?”, Carl asks. “Well, after all, he
IS a politician!” Max replies.

In this context, I added a small dialogue between Carl and a
student to indicate an apparent (temporary) discrepancy with
respect to the assumed cg. Carl apparently doesn’t
understand the reaction of the student Max, which causes Max
to add special emphasis to the ‘after all’ part to remind Carl of
the cg: Max assumes that it is common knowledge that being
a politician goes hand in hand with some conveniences (e.g.
still being able to do one’s job even after having lost a title).
Max calls on this cg by using doch. I expected that this small
modification of the context would cause participants to choose
doch more often instead of ja. Indeed, out of another 20 native
German respondents, sixteen chose doch (80%). One
respondent chose schon, three chose ja. Additionally, it should
be mentioned that four participants indicated that, next to their
first choice, other answers were possible as well. Wohl was
never an option. Despite the fact that this modal context apparently still allows other answers as well, I decided to replace context (30) by context (30’).

A third context that led participants to answer *doch* in only 63% of the cases (n = 19) is the one in (31), as included in version 3:

(31) Nathalie erzählt ihrem Mann vom Wettkampf, den sie neulich mit ihrem Pferd gewonnen hat. „Und du bist tatsächlich mit Latino geritten?“, fragt ihr Mann erstaunt. „Ja,“ antwortet Nathalie. „Er ist klein, und […] der schnellste Renner. Es ist bemerkenswert.“

Participants chose *schon* (n = 4) or *wohl* (n = 3). Again, *schon* can be used in a temporal sense. Respondents might have interpreted ‘he is small’ as ‘he is young’. In this case, it makes perfect sense to use *schon*: Despite the fact that the horse is still young, it already is the fastest of them all! I reformulated the context as in (31’):

Nathalie is telling her husband about the horserace she recently won. “And you really rode Latino?”, her husband asks amazed. “Yes. I know, it is remarkable,” Nathalie answers, “I haven’t trained with him for three years, but he was the fastest nonetheless!”

A temporal interpretation isn’t possible anymore in (31’). Moreover, I assumed that the first conjunct ‘I haven’t trained with him for three years’ more strongly evokes the exact opposite of the second conjunct ‘but he was the fastest nonetheless’ as compared to ‘he is small’. I expected that these changes would be in favor of doch in its concessive use. Indeed, out of another twenty native Germans, 100% chose doch. I decided to replace context (31) by context (31’).
6.2 Analysis and results of the main experiment with Dutch second language learners of German

The main experiment was conducted with Dutch students of German from the universities of Nijmegen, Utrecht, Leiden, Groningen and Amsterdam. In total, 85 students with Dutch as their mother tongue and German as their main subject of study participated in the experiment. The total number of respondents was higher, but some of the respondents had to be excluded from the analysis because they didn’t fit the requirements: Some of them were Dutch-German bilinguals and a couple of them didn’t study German. Before I elaborate on the most important findings, it is worth noting that neither gender nor the participants’ individual assessment of his/her competence in the target language were in any way predictive of the participants’ performance. Possible effects of order were controlled for by counterbalancing (reversing) the stimulus contexts across the several versions. The main results of the experiment will be discussed as follows: In section 6.2.1, frequency analyses will be discussed to illustrate the percentages of correct versus incorrect responses per use of *doch*. Moreover, an explorative analysis of whether participants did well on certain combinations of uses will be discussed.
Then, I will discuss the overall performance on *doch* under the possible influence of the variables ‘year of study (proficiency level)’ and ‘amount of contact with natives’ by means of a multiple regression model in section 6.2.2. In section 6.2.3, the results of a logistic regression analysis will be reported. I tested whether the participants’ year of study or their amount of contact with natives significantly influenced their performance on the individual uses of *doch*. As such, this analysis is most important with regard to the main research question of this thesis.

As explained in section 5.3.2, for each use I created four different contexts, which were distributed across four different versions. The results on the possible influence of one particular version on the performance of the respondents on the individual uses of *doch* are reported in section 6.2.4. Finally, in section 6.2.5 I will briefly discuss what particles the participants chose if they did not choose *doch*.

### 6.2.1 Frequency analyses

The results of the frequency analyses of the five different uses of *doch* are presented in tables 1-5. In these tables, both the absolute frequencies (second column) and the percentages (third column) of correct versus incorrect answers (third and second row, respectively) per use are depicted. Note that the
dependent variable – the performance on *doch* – was binary (correct-incorrect) throughout the statistical analysis.

**Table 1 Corrective Answering Particle**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Incorrect</td>
<td>15</td>
<td>17,6</td>
<td>17,6</td>
</tr>
<tr>
<td></td>
<td>Correct</td>
<td>70</td>
<td>82,4</td>
<td>82,4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>85</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

**Table 2 Correction**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Incorrect</td>
<td>14</td>
<td>16,5</td>
<td>16,5</td>
</tr>
<tr>
<td></td>
<td>Correct</td>
<td>71</td>
<td>83,5</td>
<td>83,5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>85</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>

**Table 3 Concessive**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Incorrect</td>
<td>45</td>
<td>52,9</td>
<td>52,9</td>
</tr>
<tr>
<td></td>
<td>Correct</td>
<td>40</td>
<td>47,1</td>
<td>47,1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>85</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>
We can infer from the tables that both *doch* as a corrective answering particle and *doch* in its corrective use appear to be the easiest uses (82.4% and 83.5% correct, respectively), whereas participants performed at chance level in case of the remaining three uses. Important to note is that the variables ‘year of study’ or ‘amount of contact with natives’ have not been taken into consideration as predictors of performance yet. In order to confirm and perhaps even strengthen the above results, which point at a relative simplicity of the corrective answering particle and corrective use, an explorative analysis was performed to look whether participants did well on certain combinations of uses. Assuming that they are indeed the
easiest uses, I expected that a participant would do well on the corrective context if he did well on the answering particle context as well. From the total amount of participants, nine persons answered just one out of five correctly. In three cases (3,5%) it concerned the corrective answering particle and in six cases (7,1%) it concerned the corrective use. Moreover, twenty-two participants (25,9%) gave two correct responses, again they were the answering particle and the corrective use. These results seem to confirm the relative simplicity of these uses. Another salient finding is that in another 25,9% of the cases all five doch contexts were answered correctly. The results can be found in table 6.
Table 6  Combinations correct (Answering Particle, Modal Particle, CORrection, CONcessive, Concessive Opposition)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>3</td>
<td>3.5</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>AP+MP</td>
<td>1</td>
<td>1.2</td>
<td>1.2</td>
<td>4.7</td>
</tr>
<tr>
<td>COR</td>
<td>6</td>
<td>7.1</td>
<td>7.1</td>
<td>11.8</td>
</tr>
<tr>
<td>COR+MP</td>
<td>7</td>
<td>8.2</td>
<td>8.2</td>
<td>20.0</td>
</tr>
<tr>
<td>COR+AP</td>
<td>22</td>
<td>25.9</td>
<td>25.9</td>
<td>45.9</td>
</tr>
<tr>
<td>COR+AP+MP</td>
<td>4</td>
<td>4.7</td>
<td>4.7</td>
<td>50.6</td>
</tr>
<tr>
<td>COR+CON+AP+MP</td>
<td>1</td>
<td>1.2</td>
<td>1.2</td>
<td>51.8</td>
</tr>
<tr>
<td>CO+CON+AP</td>
<td>6</td>
<td>7.1</td>
<td>7.1</td>
<td>58.8</td>
</tr>
<tr>
<td>CO+CON+AP+MP</td>
<td>4</td>
<td>4.7</td>
<td>4.7</td>
<td>63.5</td>
</tr>
<tr>
<td>CO+COR+CON+MP</td>
<td>2</td>
<td>2.4</td>
<td>2.4</td>
<td>65.9</td>
</tr>
<tr>
<td>CO+COR+CON+AP</td>
<td>5</td>
<td>5.9</td>
<td>5.9</td>
<td>74.1</td>
</tr>
<tr>
<td>CO+COR+CON+AP+MP</td>
<td>22</td>
<td>25.9</td>
<td>25.9</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>85</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

6.2.2  Performance on doch in general as predicted by ‘year of study’ and ‘amount of contact with natives’

In a multiple regression model we try to predict an outcome given certain other information. In this case that means that
we try to predict whether a participant will give a correct or incorrect answer, given the participant’s year of study and his/her amount of contact with native speakers of German. The results of the analysis can be found in table 7.

Table 7  Multiple regression analysis (dependent variable: *Doch*)\textsuperscript{16}

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2,364</td>
</tr>
<tr>
<td></td>
<td>Year of study</td>
<td>.280</td>
</tr>
<tr>
<td></td>
<td>Amount of contact with natives</td>
<td>.056</td>
</tr>
</tbody>
</table>

Adjusted R² = .03  \* p < .05

From the significance of the Beta value we can conclude that the predictor variable ‘year of study’, unlike ‘amount of contact with natives’, contributes significantly (at .05 level, as indicated by \* ) to our ability to estimate the value of the outcome. The adjusted R² gives us an idea of how well the model generalizes, that is, how well future outcomes are predicted by the model (Field 2009: 235). Unfortunately, this value is rather

\textsuperscript{16} The predictor variables were measured at interval level.
low: The current model could account for only 3% of the variance in the outcome.

The box-plot in graph 1 below shows a trend that confirms the finding that the variable ‘year of study’ contributes to the performance on *doch* in general in such a way that more advanced students (bachelor 3 and master) seem to perform better than less advanced students (bachelor 1 and 2).

![Graph 1](image-url)
The question remains whether ‘year of study’ is still a significant predictor variable when testing its influence on the performance on the individual uses of *doch* instead of on the performance on *doch* in general. This will be the topic of the next section. Despite the fact that the amount of contact with natives doesn't make a significant difference in general, for the sake of certainty this variable is still included in the upcoming analyses.

### 6.2.3 Performance on the individual uses of *doch* as predicted by ‘year of study’ and ‘amount of contact with natives’

In this section, I will elaborate on the results that are most important for answering the main research question: Can we detect differences in the performance on the individual uses of *doch* as provided in chapter 3, taking into account the possible influence of the proficiency level of our participants either measured by their year of study or their amount of contact with natives? To test this, I conducted a number of logistic regression analyses.

In case of *doch* as a corrective answering particle, the participants’ year of study turned out to be a marginally significant predictor of performance: the percentage of correct answers increased alongside with year of study (Bachelor 1 (n=34): 70,6% correct, Bachelor 2 (n=13): 84,6% correct,
Bachelor 3 (n=24): 91.7% correct, Master (n=14): 92.9% correct). The amount of contact with natives didn’t play a significant role, cf. the values of the regression coefficient B in table 8. From Nagelkerke’s R²-value we can conclude that the model can account for 13% of the variation in the outcome.

Table 8 Logistic regression analysis (dependent variable: Doch corrective answering particle)

<table>
<thead>
<tr>
<th>Included</th>
<th>B (SE)</th>
<th>Odds ratio (Exp(B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.56 (.93)</td>
<td></td>
</tr>
<tr>
<td>Year of study</td>
<td>.59# (.31)</td>
<td>1.80</td>
</tr>
<tr>
<td>Amount of contact with natives</td>
<td>.42 (.38)</td>
<td>1.53</td>
</tr>
</tbody>
</table>

R² = .08 (Cox & Snel), .13 (Nagelkerke), χ² (2) = 7.04, p < .05

# p = .055

---

17 If a variable significantly predicts an outcome, the value of the regression coefficient B should be significantly different from zero. In this case, ‘year of study’ is marginally significant, as indicated by # behind the B-value.

18 As a result of the possible unreliability of the Wald statistic, the chance exists of making a Type II error (missing a significant effect) (Field (2009): 270). In case of a marginally significant variable, Sieben & Linssen (2008: 7ff.) suggest to run a logistic regression analysis excluding that variable and to compare the Chi Square values of both models. The model without ‘year of study’ yielded χ² (1) = 2.74, p = ns. From this we can infer that ‘year of study’ does make a significant difference.
The next use that we will look at is the corrective use of *doch*. In this case, neither the year of study nor the amount of contact with natives contributed to the predictive power of the model, see table 9.

**Table 9** Logistic regression analysis (dependent variable: *Doch* corrective)

<table>
<thead>
<tr>
<th>Included</th>
<th>B (SE)</th>
<th>Odds ratio (Exp(B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.54 (.99)</td>
<td></td>
</tr>
<tr>
<td>Year of study</td>
<td>-0.01 (.27)</td>
<td>1.00</td>
</tr>
<tr>
<td>Amount of contact with natives</td>
<td>-0.36 (.34)</td>
<td>.70</td>
</tr>
</tbody>
</table>

R² = .02 (Cox & Snel), .03 (Nagelkerke), χ² (2) = 1.24, p = ns

The same holds for *doch* in its concessive use, see table 10.

**Table 10** Logistic regression analysis (dependent variable: *Doch* concessive)

<table>
<thead>
<tr>
<th>Included</th>
<th>B (SE)</th>
<th>Odds ratio (Exp(B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.44 (.74)</td>
<td></td>
</tr>
<tr>
<td>Year of study</td>
<td>.27 (.20)</td>
<td>1.31</td>
</tr>
<tr>
<td>Amount of contact with natives</td>
<td>.30 (.26)</td>
<td>1.35</td>
</tr>
</tbody>
</table>

R² = .05 (Cox & Snel), .06 (Nagelkerke), χ² (2) = 4.03, p = ns
However, for the use of *doch* as a concessive opposition, year of study did make a significant contribution to the prediction of performance: the percentage of correct answers increased alongside with the year of study (Bachelor 1 (n=34): 32.4% correct, Bachelor 2 (n=13): 53.8% correct, Bachelor 3 (n=24): 54.2% correct), Master (n=14): 71.4% correct), see table 11 for the statistics.

**Table 11** Logistic regression analysis (dependent variable: *Doch* concessive opposition)

<table>
<thead>
<tr>
<th>Included</th>
<th>B (SE)</th>
<th>Odds ratio (Exp(B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.81 (.76)</td>
<td></td>
</tr>
<tr>
<td>Year of study</td>
<td>.46* (.21)</td>
<td>1.59</td>
</tr>
<tr>
<td>Amount of contact with natives</td>
<td>.30 (.27)</td>
<td>1.35</td>
</tr>
</tbody>
</table>

R² = .09 (Cox & Snel), .12 (Nagelkerke), χ² (2) = 7.86, *p < .05

* *p < .05

Finally, the results on the use of *doch* as a modal particle will be discussed. Remember that I formulated a directive hypothesis with regard to this particular use that is in line with past research, assuming that there will be a significant difference in performance between less and more advanced learners of German. In this case that would mean that more
advanced learners will perform better. The results can be seen in table 12 below.

**Table 12  Logistic regression analysis (dependent variable: Doch modal particle)**

<table>
<thead>
<tr>
<th>Included</th>
<th>B (S.E.)</th>
<th>Odds ratio (Exp(B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.59 (.71)</td>
<td></td>
</tr>
<tr>
<td>Year of study</td>
<td>.13 (.20)</td>
<td>1.14</td>
</tr>
<tr>
<td>Amount of contact</td>
<td>-0.36 (.26)</td>
<td>.70</td>
</tr>
<tr>
<td>with natives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R² = .02 (Cox & Snel), .03 (Nagelkerke), χ² (2) = 2.10, p = ns

Because of the directive nature of the hypothesis, the significance values for year of study and amount of contact with natives were divided by two to turn them into one-tailed significance values. The results were non-significant. The percentages of correct scores can illustrate this: Bachelor 1 (n=34): 50% correct, Bachelor 2 (n=13): 46.2% correct, Bachelor 3 (n=24): 50% correct, Master (n=14): 57.1% correct.

In other words: Neither the year of study nor the amount of contact with natives seemed to influence the performance on the modal particle *doch*. The hypothesis is thus rejected. Perhaps even more striking, participants performed quite badly. This has implications for the role that we can attribute to transfer from the acoustically and semantically similar Dutch modal *toch*. 
Before I will discuss and interpret the abovementioned results in more detail in chapter 7, I will elaborate on the possible influence of the particular contexts on the performance on the individual uses in section 6.2.4.

6.2.4 Performance on the individual uses of *doch* as predicted by ‘version’

As I explained in the method section, four test contexts were designed for each of the five uses of *doch*, resulting in four versions with different contents (with respect to the test items). Of course, I intended that the different contexts for each use would have a similar degree of difficulty and clarity. This was already put to the test by conducting a pretest with native speakers of German. Nevertheless, it is worth investigating whether the performance of our Dutch participants on a particular use might have been (negatively) influenced by a particular context. Since the dependent variable is nominal, I ran a crosstabs analysis.

A significant association between the type of context (and thus version) and whether a person gave a correct or incorrect answer could only be attested for *doch* in its modal use: $\chi^2 (3) = 9.23$, $p < .05$. The following figure (1) can illustrate this.
From figure 1, it becomes clear that the significance can be explained by the apparent difficulty / lack of clarity of the context in version 2 (‘Er ist *doch* Politiker!’). The mean percentage correct score for version 2 (n=19) was 21,1%, whereas it was 52,2%, 63,6% and 61,9% for versions 1, 3 and 4 respectively. The odds of answering correctly to the modal particle context were, on average, 5.5 times higher in versions 1, 3 and 4 than in version 2. However, not choosing *doch* should perhaps not be assessed as ‘incorrect’, because
natives didn’t choose *doch* in 100% of the cases either. Remember that I concluded from the pretest that the MP context in version 2 apparently allowed the use of modal *ja* and in some cases even temporal *schon* as well, even after two modifications of the context. The behavior of the Dutch participants was slightly different in that five of them chose *ja*, seven chose *schon* and another three chose *wohl*. For the other uses of *doch*, version wasn’t a significant predictor of performance (Corrective Answering Particle: $\chi^2$ (3) = 2.40, $p = \text{ns.}$, Correction: $\chi^2$ (3) = 3.02, $p = \text{ns.}$, Concessive: $\chi^2$ (3) = 3.91, $p = \text{ns.}$, Concessive Opposition: $\chi^2$ (3) = 3.32, $p = \text{ns.}$).

6.2.5. **If not doch, then what?!**

After the main analysis, I conducted another crosstabs analysis to investigate whether the choice for a particular answer (*doch, ja, schon* or *wohl*) was related to the use of *doch* under investigation. The results can be seen in table 13 below. The bigger the discrepancy between the observed and expected counts, the likelier the variables are in some way associated. Overall, the uses of *doch* turned out to be significantly associated with their answers: $\chi^2$ (12) = 143645.68, $p < .001$. This time, the dependent variable wasn’t binary but nominal. The answers did not belong to one of the
two categories correct or incorrect anymore, but to the
categories *doch, ja, schon or wohl*.
First, in case of both the corrective answering particle and
corrective use, *doch* clearly is the best choice: Significantly
more participants than expected chose *doch*, as we can infer
from the values of the Standardized Residuals and their
respective significance (both in red). However, some Dutch
participants consider *schon* and *wohl* to be suitable as well. 
*Ja* doesn't seem to be an option at all: Significantly less
participants than expected chose *ja*. 
Table 13  Answer * Use crosstabulation

<table>
<thead>
<tr>
<th></th>
<th>CAP</th>
<th>COR</th>
<th>CON</th>
<th>CO</th>
<th>MP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Doch</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>70</td>
<td>71</td>
<td>40</td>
<td>41</td>
<td>43</td>
<td>265</td>
</tr>
<tr>
<td>Expected Count</td>
<td>53.0</td>
<td>53.0</td>
<td>53.0</td>
<td>53.0</td>
<td>53.0</td>
<td>265.0</td>
</tr>
<tr>
<td>% within Use</td>
<td>82.4%</td>
<td>83.5%</td>
<td>47.1%</td>
<td>48.2%</td>
<td>50.6%</td>
<td>62.4%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>2.3</td>
<td>2.5</td>
<td>-1.8</td>
<td>-1.6</td>
<td>-1.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ja</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>27</td>
<td>12</td>
<td>41</td>
</tr>
<tr>
<td>Expected Count</td>
<td>8.2</td>
<td>8.2</td>
<td>8.2</td>
<td>8.2</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>% within Use</td>
<td>.0%</td>
<td>1.2%</td>
<td>1.2%</td>
<td>31.8%</td>
<td>14.1%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.9</td>
<td>-2.5</td>
<td>-2.5</td>
<td>6.6</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Schon</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>8</td>
<td>8</td>
<td>43</td>
<td>9</td>
<td>20</td>
<td>88</td>
</tr>
<tr>
<td>Expected Count</td>
<td>17.6</td>
<td>17.6</td>
<td>17.6</td>
<td>17.6</td>
<td>17.6</td>
<td></td>
</tr>
<tr>
<td>% within Use</td>
<td>9.4%</td>
<td>9.4%</td>
<td>50.6%</td>
<td>10.6%</td>
<td>23.5%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.3</td>
<td>-2.3</td>
<td>6.1</td>
<td>-2.0</td>
<td>-2.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wohl</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td>Expected Count</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>% within Use</td>
<td>8.2%</td>
<td>5.9%</td>
<td>1.2%</td>
<td>9.4%</td>
<td>11.8%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>.3</td>
<td>-.5</td>
<td>-2.1</td>
<td>.7</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>425</td>
</tr>
</tbody>
</table>
If we look at the choice of particles in the concessive contexts, it immediately stands out that *schon* constitutes 50% of the results: Significantly more participants than expected chose *schon* in concessive contexts. Apparently, next to *doch*, the Dutch think that *schon* fits equally well. It is important to note that this is an overall trend that wasn’t due to deviant performances caused by a particular context. In my view, the Dutch might use *schon* as a default particle to point at some kind of affirmation. In German, *schon* is mostly used to indicate a weakened affirmation followed by some kind of restriction or limitation (cf. Ramachers 2010), as in (32):

(32) A: Hast du keine Lust, mit mir ins Kino zu gehen?
‘don’t you want to go to the cinema with me?’
B: *Schon*, aber ich muss arbeiten.
‘I do, but I have to work’.

In the concessive opposition use, *ja* offers some competition to *doch*: Significantly more participants than expected chose *ja* in CO contexts. A possible explanation is that the participants that chose *ja* opted for the safest, most neutral answer because they simply didn’t know or understand the use. In case of the modal particle use, there doesn’t seem to be any relationship at all between the use and the answers that were given. This seems to be in line with the fact that modal
particles are used in a variety of contexts and are thought to be interchangeable because of their very subtle semantic and pragmatic differences.
7. Discussion, conclusion and future challenges

This study set out to investigate whether the presumed positive relationship between proficiency level and correct use of modal particles as proposed a.o. by Ota (1995), Steinmüller (1981) and Möllering (2001) also holds for Dutch second language learners of German. Furthermore, the possible influence of proficiency level on the other uses of the German particle *doch* was explored.

What was special about this study was that the initial state of the language learners under investigation differed from the initial state of learners in previous studies on particle acquisition. Unlike these learners, e.g. babies and children (Hogeweg 2009; Ramachers 2010) and e.g. Wen’s (1995) participants that were English learners of Chinese, the Dutch start out from a language that does contain particles (quite a lot of them, actually). Moreover, they have comparable functions (see section 3.4). What are the consequences of this?

I started the investigation with the hypothesis that the modal use of *doch* will be acquired rather late. This hypothesis bases on findings from previous research on both the first and second language acquisition of particles. I expected that more advanced learners of German would use *doch* in its modal use in a correct way more frequently than less advanced learners
of German. As a consequence, a difference between the mean percentages of correct use was expected dependent on the proficiency level.

Considering that I found no significant effect of proficiency level (as measured by year of study and less so by the amount of contact with native speakers of the target language) on the performance on the modal particle contexts, as reported in sections 6.2.2 and 6.2.3, the hypothesis can be rejected. With respect to the other particle uses under investigation, it can be concluded that proficiency level does play a (minor) role in the acquisition of *doch* as an answering particle and *doch* indicating a concessive opposition. Because of the low values of $R^2$ in both cases (.13 and .12, respectively) some prudence is definitely in order when talking about the importance of this effect. Moreover, the aforementioned acoustic and semantic similarity of Dutch *toch* and German *doch*, especially with respect to their modal uses, doesn’t seem to play a role at all, because the Dutch participants all performed quite badly (only 50% correct) on the modal particle contexts, and even more importantly, they don’t improve. If there would have been positive transfer from the L1, I assume that the Dutch would have performed quite well on the modal particle contexts. If we look at the performance on the other particle uses, the L1 presumably doesn’t play a role either. The fact that the
concessive use would be translated by Dutch *toch* apparently didn’t cause all participants to choose *doch*: *Schon* was chosen equally often. Participants did quite well on the corrective answering particle contexts (70% correct): Apparently they weren’t confused by Dutch *wel*, which could have driven them towards answering *wohl* instead of *doch*. The corrective use, on which the participants performed well as well (71% correct), might be the only use that could be influenced by positive transfer, since it can be translated by Dutch *toch*. However, because the L1 doesn’t seem to play a role in the other cases, in my opinion it is unlikely that transfer can explain the good performance on this particular use.

So if it isn’t the initial state / L1 that matters that much, what can account for the results? A possibility is that the acquisition of certain particle uses develops in line with a more or less universal pattern that is also attested for L1 acquirers and learners with other L1-L2 combinations, dependent on the relative difficulty or saliency of the particle in the target language. Considering that modal particles can appear in a huge variety of contexts because of their ‘weak’ and context-dependent semantics, their interchangeability with other modal particles (remember the ‘Politiker’-context in the pretest in which *schon* turned out to fit almost equally well), the fact that they aren’t obligatory and that they aren’t very salient, neither
syntactically nor acoustically, we can conclude that modal particles are indeed at a disadvantage compared to e.g. corrective answering particles. The fact that participants performed badly on *doch* as a modal particle whereas participants performed well on *doch* as a corrective answering particle might very well be a result of the respective saliency of these uses. Crucially, this argument is also put forward in previous studies on particle acquisition by children acquiring their L1 and in some studies on the second language acquisition of typologically very distant languages (cf. the studies discussed in chapter 4). Steinmüller (1981) didn’t claim that the relatively late acquisition of modal particles might be a more general (universal) trend. However, the fact that they are also late in very similar languages, as has been proven in this study, does strengthen the assumption that they are generally acquired late. This pattern of acquisition is presumably due to some inherent difficulty and less so to the inventory and use of particles in the L1.

In this thesis, I have shown that the use of particles by Dutch students of German is not that good. Apparently, the similarity of the languages with respect to particles doesn’t make the process of acquisition easier. Perhaps it is exactly this similarity that makes learners doubt about the use of certain particles. In my opinion, it is a very common phenomenon that
second language learners try to prevent literal translations from their L1 to their L2, even in cases where they would have been correct.

The fact that proficiency level – or at least the way I measured it – only caused minor effects, definitely deserves more attention in future research. A factor that I didn’t take into consideration but which may very well be of major importance is the (length of) residence of students in the country where the target language is spoken, in this case, Germany (or perhaps Switzerland or Austria). Another requirement would be recruiting more participants in order to strengthen the significance of some results. Moreover, the present experiment forced participants to choose a particle. One important question remains unanswered: Would participants use these particles in spontaneous speech as well? For this purpose, it would certainly be useful to set up a corpus with (longitudinal) data of second language learners. This would enable us to look at both qualitative and quantitative differences between native and non-native speakers. One might also consider testing high school students in order to broaden the range of proficiency levels. Consequently, we might find stronger effects of proficiency level.

However, the fact that I didn’t find a strong effect of proficiency level doesn’t mean that the results are of no use. The fact that
university students apparently do not improve with respect to their particle use despite that they study the target language on an almost daily basis is a striking result on its own that calls for some serious educational attention. In the last paragraph, I will discuss some possibilities to improve the quantitative and qualitative (academic) educational treatment of particles. As Möllering (2001) said, informality and familiarity are important situational characteristics or even prerequisites for modal particle usage. I can imagine that the climate in some university classrooms isn’t very informal. As a result, students might hear a lot of German, but not many (modal) particles. Among others, Möllering (2001) stressed the importance of explicit instruction of the different particle functions embedded in various appropriate contexts and with attention for particular collocations, because this might help the acquisition process. I agreed with Möllering before I started writing this thesis, but now I am absolutely convinced of the fact that teachers should pay explicit attention to particles, their functions and their appropriate use. One way to do this is by starting with an ‘awareness phase’, for example by first confronting students with a context void of any particles and subsequently providing them with that same context with particles: This will make students realize that particles do offer a contribution to the discourse. After students have become aware of the importance of particles, they can regularly and repeatedly be
confronted with various appropriate contexts to let them find out the exact communicative function of a particular particle. One might call this ‘automatizing’. After that, they should be encouraged to productively use particles in conversations. Because particles cross a lot of linguistic domains, the attention for particles can easily be integrated in almost any class that deals with linguistics in some way, be it a class on syntax, phonology or semantics and pragmatics.
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Appendix 1: The questionnaire (versions 1-4)

A. Introduction (equal across versions)

Sehr geehrter Teilnehmer,

zunächst herzlichen Dank, dass Sie an unserer Untersuchung teilnehmen wollen. Das Ausfüllen des Fragebogens wird ungefähr 5 bis 10 Minuten in Anspruch nehmen.
Durch Ihre Teilnahme an dieser Untersuchung leisten Sie einen wesentlichen Beitrag zur deutschen Sprachwissenschaft. Außerdem werden die Resultate dieser Studie für den (wissenschaftlichen) Unterricht “Deutsch als Fremdsprache” sehr brauchbar sein.
Zuerst werden einige Fragen bezüglich Ihrer Personalien gestellt. Diese Informationen sind nötig zur Auswertung der Daten. Selbstverständlich werden Ihre Daten vertraulich behandelt.
Falls Sie an den Resultaten der Untersuchung interessiert sind, können Sie am Ende des Fragebogens Ihre E-mailadresse hinterlassen.
Nochmals herzlichen Dank für Ihre Mitarbeit.

Mit freundlichem Gruß
Stefanie Ramachers, MA
Verena Wottrich
Radboud Universität Nimwegen

B. Personal information (equal across versions)

Bitte beantworten Sie die folgenden Fragen entweder auf Deutsch, Niederländisch oder English. Beantworten Sie bitte nur die Fragen, die auf Sie persönlich zutreffen.

Alter:

Geschlecht:
- Männlich
- Weiblich

-Nationalität:
- Muttersprache:

- Wohnort:

- Höchst abgeschlossene Ausbildung (z.B. Abitur / Hochschulstudium / Universität):

- Beruf:

- Momentane Ausbildung:
  - Student
  - Berufstätig
  - Sonstiges

- Falls Universität, an welcher Universität?:

- Falls Universität, welcher Studiengang? (z.B. Germanistik, Jura):

- Falls Universität, welches Jahr?:
  - Bachelor 1 (Nl: propedeuse)
  - Bachelor 2
  - Bachelor 3
  - Master
- Kontakt mit deutschen Muttersprachlern außerhalb des Studiums bzw. Berufs:
  - Nie
  - Manchmal
  - Regelmäßig
  - Oft

-Wie würden Sie Ihr Deutschniveau einschätzen?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7 Sehr gut</th>
</tr>
</thead>
</table>
C. Experimental contexts

Version 1

1) Caroline, 7 Jahre alt, berichtet ihrem Großvater über alles, was sie letzte Woche in der Schule gelernt hat. „Wir haben die Hauptstädte aller europäischen Ländern gelernt!“, ruft sie aufgeregt. „Berlin ist die Hauptstadt Deutschlands! Und London ist die Hauptstadt der Niederlande!“ Großvater lacht: „Aber Caroline, London ist [...] nicht die Hauptstadt der Niederlande?! Das ist Amsterdam!“

> Doch MP

> In den
3) „Es ist Zeit, Louisa. Wir müssen los.“ „Jetzt [...]? Ich dachte der Termin wäre erst in einer Stunde.“

> Schon
4) Nina und Lara laufen an einem schönen Sommertag durch die Berliner Innenstadt. Plötzlich sehen sie auf der anderen Straßenseite eine Gruppe seltsam verkleideter Menschen. Nina fragt: „Was sind das [...] für Leute da drüben?“
5) Frau Jansen ist beim Bäcker. Sie schaut sich um und stellt fest, dass keine Kirschtorten mehr da sind. „Haben Sie keine Kirschtorten mehr?“ fragt sie enttäuscht. „[…],“ antwortet die Verkäuferin, „gerade frisch gebacken. Sie stehen noch hinten zum Abkühlen.“

> Doch AP

6) Roland war gestern mit dem Auto auf der Landstraße unterwegs. Zufällig hat er einen Autounfall beobachtet und berichtet seinem Freund Alexander hiervon: „Mehrere Autos sind ineinander gefahren! […] sogar ein Motorrad war in den Unfall verwickelt!“

> Ja

7) Sabrina ist heute spät dran. Um noch pünktlich zum Unterricht zu kommen, hetzt sie durch die Uni auf der Suche nach dem Richtigen Unterrichtsraum. Schnell klopft sie an die Tür von dem Raum von dem sie denkt, dass es der Richtige sei und tritt ein. Verwundert stellt sie fest, dass sie niemanden in diesem Raum kennt und sie sagt: „Entschuldigung. Ich muss mich […] im Raum geirrt haben.“

> Wohl


> Nach
9) Christina ist wahnsinnig nervös denn sie schreibt gleich eine wichtige Matheklausur. Ihre Freundin Tina versucht sie etwas aufzuheitern: „Mach dir keine Sorgen. Das schaffst du […] Du hast so viel gelernt!“

> Schon

10) Nicky kommt aus der Schule, sie weint. „Was ist denn los?“ fragt ihre Mutter besorgt. „Ach Mama, wir wohnen hier jetzt schon 4 Jahre und ich habe schon so viele Kinder kennengelernt, aber […] fühle ich mich noch immer alleine.“

> Doch CON

11) Patrick und seine Clique stehen auf einer Autobahnbrücke. Um richtig zu der Clique zugehören zu können, soll Patrick, als Mutprobe, mit einem Bein über das Geländer klettern. Patrick will unbedingt dazugehören und er macht es. Als er gerade wieder mit beiden Beinen hinter dem Geländer steht kommt von weitem sein Freund Tim angerannt. „Sag mal, du spinnst doch […]! Warum hast du das gemacht? Dir hätte sonst was passieren können!“

> Wohl

12) Elisa fragt ihre Mutter, was sie während der kommenden Ferien machen werden. Ihre Mutter antwortet: „Das weißt du doch, wir fahren […] Mittelmeer um den Strand und die Sonne zu genießen!“

> Ans

> Doch COR

14) Heike und Christina trinken Kaffee in der Stadt. „Bist du gestern noch mit Robin ins Kino gegangen?“ fragt Heike. „[…]“, nickt Christina, „der Film war super!“

> Ja

15) Marianne ist besonders unruhig. „Müssen wir nicht bald mal los?“ Ihre Mutter lächelt. „Geduld, Marianne.“ „Aber Mama, der Zug fährt um 10.25 Uhr und es sind noch 20 Minuten bis […] Bahnhof!“

> Zum


> Doch CO

17) Lena und Maike wollen ihre Freundin Katharina besuchen. Seit 5 Minuten stehen sie nun schon vor der Haustür, aber

> Wohl

Version 2


> Doch MP


> In den

3) „Es ist Zeit, Louisa. Wir müssen los.“ „Jetzt […]? Ich dachte der Termin wäre erst in einer Stunde.“

> Schon
4) Völlig gestresst und unmotiviert sitzt Herr Krause vor seinem Schreibtisch und starrt auf den Berg an Formularen, die er heute noch alle bearbeiten muss. „Wie lang muss ich […] diese schreckliche Arbeit noch machen, bis ich endlich einen neuen, besseren Job finde?“, seufzt er.

> Wohl

5) Joachim ist mit einigen Freunden in der Kneipe. Ein Wirt nimmt die Bestellung auf. „Bitte sehr?“ „Einen Rotwein!“ sagt Joachim. Seine Freunde gucken ihn verwundert an. „Du trinkst doch gar keinen Wein?“ rufen sie erstaunt. „[…]! Oder zumindest seit letzter Woche.“

> Doch AP

6) Roland war gestern mit dem Auto auf der Landstraße unterwegs. Zufällig hat er einen Autounfall beobachtet und berichtet seinem Freund Alexander hiervon: „Mehrere Autos sind ineinander gefahren! […] sogar ein Motorrad war in den Unfall verwickelt!“

> Ja

7) Philipp macht sich große Sorgen um seinen Kater Carlo. Er ist in letzter Zeit sehr schwach und bewegt sich kaum noch. Der Tierarzt soll klären, was mit dem armen Tier ist. „Er hat […] in letzter Zeit nicht viel gegessen, oder? Er ist so mager!“, sagt der Tierarzt.

> Wohl

> Nach
9) Christina ist wahnsinnig nervös denn sie schreibt gleich eine wichtige Matheklausur. Ihre Freundin Tina versucht sie etwas aufzuheitern: „Mach dir keine Sorgen. Das schaffst du […] Du hast so viel gelernt!“

> Schon
10) Martin und Peter unterhalten sich bei einem Glas Bier verärgert über ihr letztes Fußballmatch. „Es ist einfach ungerecht.“ schlussfolgert Martin. „Wir haben bis zum Ende gekämpft, und […] verloren!“

> Doch CON
11) Frau Schulte geht zum Bäcker. Dort angekommen erzählt ihr die Bäckerin: „Haben Sie schon gehört, Frau Schulte, die von der Regierung wollen schon wieder die Rente kürzen.“ „Das ist doch […] nicht deren Ernst, oder? Ich habe jetzt schon zu wenig Geld.“

> Wohl
12) Elisa fragt ihre Mutter, was sie während der kommenden Ferien machen werden. Ihre Mutter antwortet: “Das weißt du doch, wir fahren […] Mittelmeer um den Strand und die Sonne zu genießen!”

> Ans

> Doch COR

14) Heike und Christina trinken Kaffee in der Stadt. „Bist du gestern noch mit Robin ins Kino gegangen?“ fragt Heike. „[…]“, nickt Christina, „der Film war super!“

> Ja

15) Marianne ist besonders unruhig. „Müssen wir nicht bald mal los?“ Ihre Mutter lächelt. „Geduld, Marianne.“ „Aber Mama, der Zug fährt um 10.25 Uhr und es sind noch 20 Minuten bis […] Bahnhof!“

> Zum

16) Oliver trifft zufällig einen Freund im Supermarkt. „Hey Max!“ lacht Oliver, „habt ihr gestern noch tüchtig gefeiert bei Lena?“ „Tja, sie hatte richtig viel Bier eingelagert, […] nach einer Stunde kamen ihre Eltern plötzlich aus dem Urlaub zurück.“ „Wie peinlich!“

> Doch CO

17) Im Mathematikunterricht werden gerade die Hausaufgaben für die heutige Stunde besprochen. Frau Schneider fragt Moritz: „Moritz, was ist das Ergebnis von
Aufgabe 1a ?“. Moritz antwortet: „Es tut mir Leid, aber ich habe mein Matheheft zu Hause vergessen“. Frau Schneider: „Schon wieder? Also so langsam glaube ich, dass du deine Hausaufgaben nicht gemacht hast.“ Daraufhin erwidert Moritz: „Ich habe meine Hausaufgaben [...] gemacht!“

> Wohl

Version 3

1) Martina eilt in ihrem Büro herum. „Ich habe hier [...] irgendwo meine Brille hingelegt!“

> Doch MP


> In den

3) „Es ist Zeit, Louisa. Wir müssen los.“ „Jetzt [...]? Ich dachte der Termin wäre erst in einer Stunde.“

> Schon

4) Im Hörsaal unterhalten sich Marina und Franziska angeregt über ihre Kommilitonen. Ihre Aufmerksamkeit richtet sich plötzlich auf ein blondes Mädchen in der ersten Reihe, das sie nicht kennen. „Sag mal Franzi, kennst du die Blonde da vorne?“
Ich glaub ich hab sie noch nie hier gesehen“, sagt Marina.
Franziska antwortet: „Nee, keine Ahnung. Wie heißt sie [...]?“

> Wohl
5) Petra trifft sich mit ihrer besten Freundin, die für ihre Arbeit sechs Monate im Ausland war. „Hmm, ich weiß nicht, ob ich es ertragen könnte, so lange von zu Hause weg zu sein,“ sagt Petra. Ihre Freundin lächelt. „Es war aber eine einmalige Chance, auch mal zu sehen, wie es bei der Firma in Südafrika aussieht. Denkst du, ich hätte es nicht tun sollen?“ „[...]? Ich meine bloß, dass ich nicht wüsste, was ich in deiner Situation getan hätte“

> Doch AP
6) Roland war gestern mit dem Auto auf der Landstraße unterwegs. Zufällig hat er einen Autounfall beobachtet und berichtet seinem Freund Alexander hiervon: „Mehrere Autos sind ineinander gefahren! [...] sogar ein Motorrad war in den Unfall verwickelt!“

> Ja
7) Paul versucht auf dem Schulhof seine Freunde mit einem neuen Witz zu beeindrucken. Nachdem er seinen Witz erzählt hat, lacht niemand. Enttäuscht dreht er sich um und verschwindet in die andere Ecke des Schulhofes. Als Paul außer Sichtweite ist sagt Hendrik: „Der hat [...] selbst gemerkt, dass der Witz echt mies war.“

> Wohl

> Nach

9) Christina ist wahnsinnig nervös denn sie schreibt gleich eine wichtige Matheklausur. Ihre Freundin Tina versucht sie etwas aufzuheitern: „Mach dir keine Sorgen. Das schaffst du […] Du hast so viel gelernt!“

> Schon


> Doch CON

11) Marcel liegt mit Übelkeit und Bauchschmerzen im Bett. Seine Mutter sitzt neben ihm und reicht ihm etwas zu trinken. Plötzlich kommt sein Vater ins Zimmer um nach seinem Sohn zu sehen. „Was hat er denn?“, fragt der Vater seine Frau. „Er hat doch […] nicht etwas Falsches gegessen?“

> Wohl

12) Elisa fragt ihre Mutter, was sie während der kommenden Ferien machen werden. Ihre Mutter antwortet: „Das weißt du doch, wir fahren […] Mittelmeer um den Strand und die Sonne zu genießen!“
13) Franz geht in seinem Büro suchend auf und ab. „Wo ist die Schere“, murmelt er, „ich habe sie nicht in die Schublade gelegt.“ Nachdem er ohnehin seine ganze Schublade durcheinander geworfen hat, sieht er auf deren Boden die Schere. „Ich habe sie also […] in die Schublade gelegt!“

> Doch COR

14) Heike und Christina trinken Kaffee in der Stadt. „Bist du gestern noch mit Robin ins Kino gegangen?“ fragt Heike. „[…]“, nickt Christina, „der Film war super!“

> Ja

15) Marianne ist besonders unruhig. „Müssen wir nicht bald mal los?“ Ihre Mutter lächelt. „Geduld, Marianne.“ „Aber Mama, der Zug fährt um 10.25 Uhr und es sind noch 20 Minuten bis […] Bahnhof!“

> Zum

16) „Wie war denn deine erste Unterrichtsstunde?“ fragt Maria ihre Tochter Anna, die heute zum ersten Mal an der Uni war. „Der Dozent war einfach super!“, fängt Anna hoffnungsvoll an, „[…] das Thema war langweilig.“

> Doch CO

17) Die Familie Stratmann sitzt nach dem Abendessen zusammen am Esstisch. „Mama, ich hab immer noch Hunger“, sagt die kleine Eva. Daraufhin antwortet die Mutter: „Das kann doch gar nicht sein, Eva. Du hast so wahnsinnig viel gegessen."
Du hast keinen Hunger mehr.“ „Ich habe […] Hunger!“, quengelt Eva.

> Wohl

**Version 4**

1) Mark hat seine Prüfung nicht bestanden. Sein Vater ist wütend und diskutiert mit Marks Mutter. „Jetzt ist Schluss! Immer wieder Fußball, hätte er stattdessen […] lieber seine Hausaufgaben gemacht!“

> Doch MP


> In den

3) „Es ist Zeit, Louisa. Wir müssen los.“ „Jetzt […]? Ich dachte der Termin wäre erst in einer Stunde.“

> Schon

4) Im Büro unterhalten sich Herr Zimmermann und Frau Schneider über ihre Chefin Frau Müller, die sich gerade auf Dienstreise befindet. Niemand aus der Abteilung weiß so richtig, wann die Chefin wieder zurück sein wird und deshalbfragt Herr Zimmermann Frau Schneider: „Was glauben Sie,
Frau Schneider, wann wird Frau Müller [...] wieder da sein?“ „Ich weiß es nicht“, antwortet Frau Schneider.

> Wohl

5) Johann und Debbie sind auf dem Weg zu einer Party. „Ich bin gespannt, wie viele Leute da sind!“ sagt Debbie begeistert. „Na ja,“ sagt Johann, „Peter kommt jedenfalls nicht.“ „[...]“ erwidert Debbie, „ich bin ihm gestern noch begegnet, und da sagte er, dass er kommen würde!“

> Doch AP

6) Roland war gestern mit dem Auto auf der Landstraße unterwegs. Zufällig hat er einen Autounfall beobachtet und berichtet seinem Freund Alexander hiervon: „Mehrere Autos sind ineinander gefahren! [...] sogar ein Motorrad war in den Unfall verwickelt!“

> Ja

7) Martin und seine Schwester Lisa sitzen gemeinsam am Mittagstisch. Martin isst einen Döner, den er sich gerade auf dem Nachhauseweg gekauft hat. Lisa sitzt hungrig daneben und starrt gierig auf Martins Döner. Martin bemerkt dies und stellt fest: „Du hast [...] auch Hunger, was??“

> Wohl


> Nach
9) Christina ist wahnsinnig nervös denn sie schreibt gleich eine wichtige Matheklausur. Ihre Freundin Tina versucht sie etwas aufzuheitern: „Mach dir keine Sorgen. Das schaffst du [...]. Du hast so viel gelernt!“

> Schon


> Doch CON

11) Max sitzt mit seiner Freundin Laura in ihrem Stammcafé. Laura wollte ihren Freund unbedingt sprechen. Es sei wichtig, sagte sie. „Max, ich muss dir was sagen“, beginnt Laura, „ich werde nächstes Jahr für ein halbes Jahr nach Frankreich gehen um dort zu studieren.“ „Was?!“, sagt Max perplex, „das ist doch […] nicht wahr, oder?“

> Wohl

12) Elisa fragt ihre Mutter, was sie während der kommenden Ferien machen werden. Ihre Mutter antwortet: „Das weißt du doch, wir fahren […] Mittelmeer um den Strand und die Sonne zu genießen!“

> Ans

13) Marie und Linda machen einen Stadtbummel in Köln. Linda muss aber früh los, weil sie heute noch ihre Tante im
benachbarten Dorf besuchen will. Sie guckt plötzlich auf ihre Uhr. „Ist es schon so spät?! Ich muss los!“ Marie schüttelt den Kopf. „Den Bus von 15.30 Uhr erreicht du ja eh nicht mehr.“ „Wollen wir wetten?“ Linda grinst und rennt fort. Abends ruft sie Marie noch an. „Ich war um 16.00 Uhr hier!“ ruft sie stolz. „Du hast den Bus also [...] noch gekriegt,“ schließt Marie.

> Doch COR

14) Heike und Christina trinken Kaffee in der Stadt. „Bist du gestern noch mit Robin ins Kino gegangen?“ fragt Heike. „[...]“, nickt Christina, „der Film war super!“

> Ja

15) Marianne ist besonders unruhig. „Müssen wir nicht bald mal los?“ Ihre Mutter lächelt. „Geduld, Marianne.“ „Aber Mama, der Zug fährt um 10.25 Uhr und es sind noch 20 Minuten bis [...] Bahnhof!“

> Zum

16) Sophie und Moritz essen ein Eis in ihrem sonnigen Garten. „Warst du gestern noch shoppen mit Hilde?“ fragt Moritz. „Wir waren in Aachen“, antwortet Sophie, „[...] die Läden waren aus irgendeinem festlichen Anlass geschlossen…“. „Und?“ „Na ja, dann sind wir halt wieder nach Hause gefahren.“

> Doch CO

17) Jana und ihr kleiner Bruder Fabian streiten sich im Garten um eine Schaufel. „Ich hab die Schaufel zuerst gehabt!“
Jana. „Nein, das stimmt nicht! Du hast die Schaufel nicht zuerst gehabt“, entgegnet Fabian. „Ich hab die Schaufel […] zuerst gehabt!“, schreit Jana und reißt ihrem Bruder mit einem Ruck die Schaufel aus der Hand.

> Wohl
Appendix 2: Summary of the results of the pretest

% correct ‘doch’ by native speakers of German (red = contexts that were altered after the pretest, as reported in section 6.1)

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