

Eberhard Karls Universität Tübingen

Seminar für Sprachwissenschaft

**Kommentiert [MS1]:** Am Ende darauf achten: 1. Einzug nach jedem Absatz gleich breit? 2. Nummerierung der Beispiele im Text korrekt? 3. Jahreszahlen im Text mit Jahreszahlen in Zotero (und entsprechend den References) abgleichen 4. entweder überall we oder I/us oder me 5. verweise auf andere subchapters korrekt? 6. [check if I included all papers that James sent to me in May(?)]

**Acceptability Judgments About  
Contrastive Dialogues Involving Ellipsis:  
A Pilot Study**

Thesis submitted for the degree of Master of Arts

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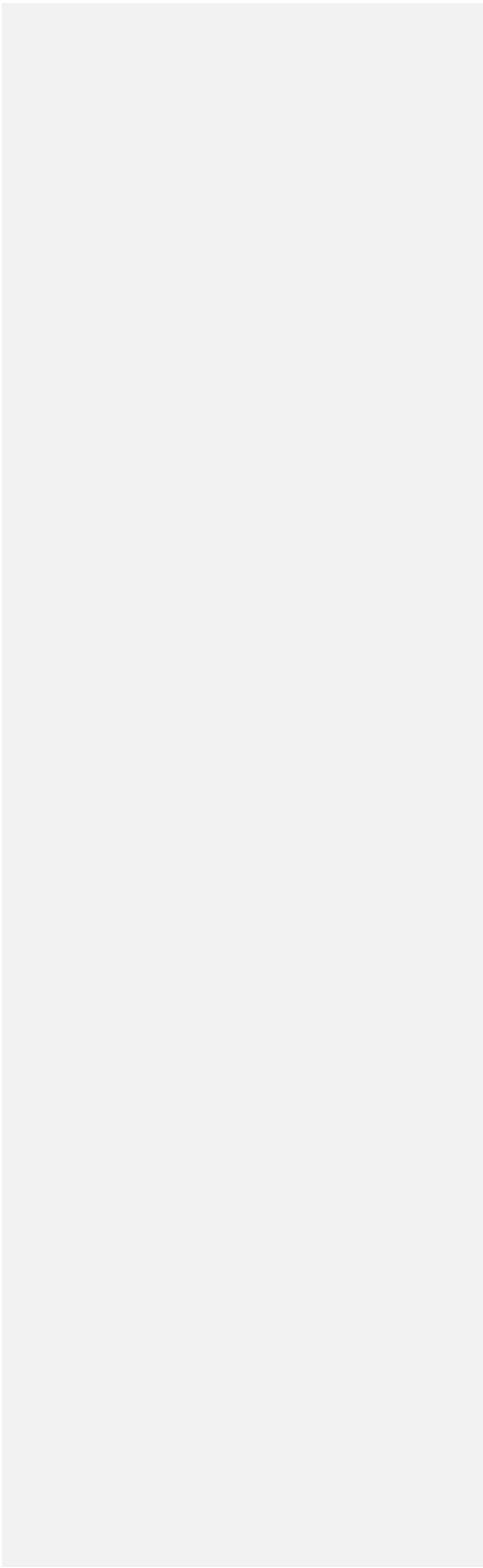
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Abstract

This research co



## 1. Introduction

In this chapter, the background and motivation for the present study is provided, outlining the research questions and objectives that guide our investigation. I emphasize the significance of this study, while acknowledging the scope and limitations inherent in our research design.

### 1.1 Background and motivation

The pronunciation of a sentence holds significance, encompassing not only the stressed words but also the contents emphasized in the conversation. However, it is reasonable to assume that the perception of naturalness by native speakers may not solely depend on the stressed word but also on its associated meaning as well as the structure of the sentence. This becomes particularly intriguing in dialogues that involve contrastive focus and incomplete sentences as answers, as illustrated in the following example in German (1).

- (1) A: Peter hat AB 18 Uhr im Kino gearbeitet.  
'Peter worked at the cinema FROM 6pm.'  
B: Nein, BIS 18 Uhr.  
'No, UNTIL 6pm.'  
(own example)
- (2) A: Peter hat ab 18 Uhr im KINO gearbeitet.  
'Peter worked at the CINEMA from 6pm.'  
B: Nein, BIS 18 Uhr.  
'No, UNTIL 6pm.'  
(own example)

Speaker B's response in (1) lacks a complete sentence structure. Therefore, to understand the intended meaning of speaker B's response, the reader must construct a complete sentence using both speaker A's preceding utterance and speaker B's response. Hence, the reader can derive the following sentence: *Peter worked at the cinema until 6pm.* For an in-depth analysis of the processing of such incomplete utterances, see chapter 2.1.

However, for the reader to grasp its intended message, they need to first identify the word *bis* 'until' as contrasting with something else and then discern the intended meaning behind speaker B's response. If the reader is not primed for the contrast through orthographic marking, understanding

speaker B's response could become even more challenging. This becomes particularly evident when speaker A emphasizes a word other than *bis*, as demonstrated in example (2).

In the dialogue (2), emphasis is being placed on the word *Kino* 'cinema'. Since speaker B's utterance is focused on a part of speaker A's utterance that is not emphasized in the conversation, the reader is confronted with the contrast unexpectedly. It is yet to determine to what extent native speakers struggle more to interpret dialogues without emphasis on the contrastive words such as (2) in comparison to dialogues such as (1). Additionally, other factors that might influence the acceptability ratings of such dialogues should be analyzed. The following section will present the factors and hypotheses investigated in the present paper.

## 1.2 Research questions and objectives

The present paper aims to determine the most effective medium for reliably obtaining judgments about such dialogues involving contrastive focus and fragmentary answers. By examining the effects of different stimulus characteristics, we seek to deepen our understanding of how modality, emphasis, and fragment type contribute to the perceived acceptability of fragments. In this section, the research questions and hypotheses of the study are presented.

First, as has been shown by the examples (1) and (2), dialogues that incorporate orthographic marked contrasting words are contrasted with dialogues, in which another word than the contrasting word is orthographically marked in the preceding utterance. The present paper aims to investigate which dialogues are perceived as more natural by native speakers. It is hypothesized that stimuli emphasizing the contrasting words are regarded as more natural by native speakers. This prediction is grounded in the assumption that emphasizing the contrasting elements enhances their salience and facilitates comprehension, leading to increased acceptability. For an overview of the role of emphasis in sentence comprehension, see chapter 2.3.

Furthermore, a comparison is made between (1) and (2) on the one hand and their verbal counterparts on the other hand. That is, the sentences (1) and (2) are recorded by native speakers and differ in where the

prosodic emphasis is placed. Building upon the notion that the majority of our language interactions occur through spoken and heard communication rather than written and read forms, a second hypothesis posits that, generally, auditory stimuli are more likely to be accepted by native speaker than written stimuli. Given that fragments are prevalent in everyday speech, the presentation of auditory stimuli is expected to establish an authentic and natural context, leading to heightened acceptability ratings compared to written stimuli. For an in-depth discussion of auditory stimuli in acceptability ratings, see chapter 2.5.

Last, dialogues such as (1) and (2) are compared to dialogues, in which the contrastive words do not have functional meaning but lexical meaning. That is, instead of prepositions such as *bis* 'until' and *ab* 'from', the contrastive focus is placed on nouns such as *Bruder* 'brother' and *Vater* 'father' as in (3). See also (4) as the equivalent to (3) but with emphasis on *Buch* 'book', which is not contrasting with speaker B's response.

(3) A: Peter hat seinem BRUDER ein Buch geschenkt.  
'Pete gave a book to his BROTHER.'

B: Nein, seinem VATER.  
'No, his FATHER.'

(own example)

(4) A: Peter hat seinem Bruder ein BUCH geschenkt.  
'Pete gave a BOOK to his brother.'

B: Nein, seinem VATER.  
'No, his FATHER.'

(own example)

Thus, it is hypothesized that stimuli with lexical words in contrastive focus such as *Bruder* 'brother' and *Vater* 'father' receive higher acceptability ratings than stimuli with functional words in contrastive focus such as *ab* and *bis*. Previous studies that compare functional and lexical words in stimuli are summarized in chapter 2.6.

### 1.3 Significance of the study

In the following section, the significance of the present study is demonstrated by exploring the implications of the findings for theoretical frameworks and practical applications.

Absatz zu frameworks und wie fragments helfen können zwischen move and delete und insitu zu unterscheiden. Verweis auf die jeweiligen Kapitel, wo die frameworks erklärt werden. → aber MA schaut sich P-omission nicht an?

Absatz zu Untersuchung von comprehension of elliptical structures that compares the processing of lexical contrastive answers to functional contrastive answers. Previous studies have focused on solely lexical contrastive answers, i.e., mostly proper names and derived theories on how such structures are processed based on this data. However, it very well might be that it is different from the processing of functional fragmentary answers and the theories have to account for that.

Absatz zu acceptability judgments und formal methods

Surprisingly, acceptability judgments have been underutilized in previous studies, especially in assessing the acceptability of fragments. While previous research has shed light on the comprehension of fragments and the role of focus and ellipsis, the specific focus on acceptability judgments has remained largely unexplored. Therefore, this study will be the first of its kind to systematically examine and compare different media for collecting acceptability judgments about fragments. By determining the best medium for reliably obtaining these judgments, our research will contribute to a deeper understanding of the nature of fragments and provide valuable insights for future studies in linguistics and psycholinguistics.

Identify the gaps or limitations in the current literature and highlight the need for your research

#### 1.4 Scope and limitations

In the following, the limitations inherent in our research design, acknowledging the potential constraints and scope of the investigation are addressed.



Zum Beispiel nur Untersuchung von Fragments innerhalb von linguistic generative theories?

Include Paragraph on limitations, z. B.

- keine Erhebung zu regionalen Unterschieden oder Unterschieden in den acceptability judgments von unterschiedlichen Altersgruppen (laut Literatur sind das signifikante Faktoren, nochmal nachschauen)
- Und nur untersuchung von syntaktischer ellipse (gibt es auch in semantik und pragmatik) → grenze zu semantik und pragmatik ziehen (siehe Merchant 2010)
- Nur Untersuchung von IP-ellipsis (was sind die Unterschiede? Haben wir wirklich nur IP-Fragments?)
- Inherent limitations of acceptability judgment tasks
- 

The present paper is subdivided as follows. Chapter 2 delves into the theoretical background of fragments, focus, and ellipsis comprehension, providing a more detailed explanation of our hypotheses. Chapter 3 centers on the study design and participant information. Chapter 4 presents the findings of the study, while chapter 5 explores and addresses any confounding factors related to the findings. Lastly, chapter 6 concludes with a summary of the study and offers insights into potential avenues for future research.

**Kommentiert [MS3]:** Update that once the MA is done und insert in 1.1

**Kommentiert [MS4R3]:** Oder löschen? Ich habe ja ein table of contents und dieser Absatz passt auch nicht zu dem Kapitel Scope and limitations

## 2. Literary review

This chapter provides an overview of fragment theory, including the theoretical framework of ellipsis as well as a definition of contrastive focus and contrastive fragments. I discuss the methodological approach of acceptability judgment tasks, which allow us to capture native speakers' intuitions about the grammaticality and acceptability of linguistic constructions. Moreover, previous the role of emphasis in sentence comprehension is discussed and research on written and auditory stimuli as well as functional and lexical stimuli is reviewed to establish a strong foundation for our own empirical analysis and contribute to the broader understanding of these linguistic phenomena.

### 2.1 Fragment theory and its linguistic foundations

Fragments are a specific type of ellipsis. Hence, before one can delve into the theory on fragments, the background about ellipsis has to be provided first. Therefore, the two main paradigms of theories of ellipsis, i.e., the deletion and the nondeletion accounts, are discussed. Next, the fragment theory is explained, including their linguistic foundations.

The term *ellipsis* is used to refer to an interface phenomenon that occurs among syntax, semantics, and information structure, where linguistic material is omitted (cf. Winkler 2016, Lobeck 1995). This is exemplified in the following example.

(5) Bill should collect butterflies. Jill should, too.

(Merchant 2010, p. 143)

The example (5) consists of two phrases, of which the former is commonly understood as a complete sentence and the latter is built by an elliptical structure, i.e., at least one constituent is omitted. While there are numerous types of ellipsis, an in-depth analysis of each of those types would go beyond the scope of this paper. Therefore, the discuss of ellipsis and its theoretical frameworks is limited to elliptical structures such as in (5).

To account for such structures, several theories have been proposed that can be classified into two research paradigms: the deletion accounts

and the nondeletion accounts. While the former assumes that elliptical utterances are built on syntactic structures but these structures are not phonologically realized, the latter denies any **structure** in ellipsis (cf. Winkler 2016).

**Kommentiert [MS5]:** Maybe don't use "elliptical structures" but "elliptical utterances" because ellipsis might not have structures according to some theories

[hier könnte man mehr zu Merchant einfügen, aber eigentlich ist es nicht relevant für die Hypothesen in der MA]

Despite their incompleteness, elliptical utterances can nevertheless be correctly processed by the hearer or reader because only linguistic material that is redundant given in the discourse can be deleted (cf. Winkler 2016). Therefore, the hearer or reader can derive the meaning of the elliptical utterance from the previous discourse.

Discuss:

- Definition of ellipsis in general and different types of ellipsis (see Winkler in Oxford Handbook about Information structure who discusses deletion and nondeletion accounts of ellipsis)
- Licensing conditions are not(?) discussed in this chapter but the licensing conditions of fragments are discussed in 2.2
- Interpretation and comprehension of elliptic structures is discussed in 2.5
- the role of ellipsis in regard to information structure is discussed briefly in 2.3(?)

Intuitively, one can say that (5) is a complete sentence.

(6) Bill should collect butterflies.

(adapted from Merchant 2010, p. 143)

Depending on the theory, such sentences are called TP, IP, or CP (cf. Merchant 2010). However, in daily life, we encounter many utterances that do not represent complete sentences such *Jill should, too* in (6).

(7) Bill should collect butterflies. Jill should, too.

(Merchant 2010, p. 143)

Incomplete sentences such as *Jill should, too* are called ellipsis (cf. Stainton 2006). However, while such elliptical structures are distinguished from sentences due to their incompleteness, the definitions of a sentences and ellipsis heavily depend on the respective framework (cf. Glück 2016). For the sake of the present paper, a term sentence is used to refer to a syntactic structure that includes all required elements. A definition of ellipsis is given below.

Generally, ellipsis describes the “linguistic phenomena where a sentence lacks material that would normally be obligatory, and the missing material is nevertheless semantically recoverable from the local syntactic or semantic context” (Philips & Parker 2014, p. 78).

According to Stainton (2006), incomplete sentences such as *Jill should, too* in (6) are the result of ellipsis. That is, a linguistic representation *r* is deemed grammatically elliptical iff “there exists another linguistic representation *r'* in the language such that *r'* has a longer phonological form than *r*, but *r'* has precisely the same context-invariant content as *r*. In the case of *Jill should, too*, this linguistic representation *r'* would be the sentence (7).

(8) *Jill should collect butterflies, too.*

(adapted from Merchant 2010, p. 143)

Therefore, *r* and *r'* do not differ in their grammatical structure but in their phonological representation. Hence, ellipsis can be understood as “a grammatical process of abbreviation” (Stainton 2006, p. 98, emphasis omitted).

Similarly, sentences in which only the *wh*-phrase remains such as in the German example in (8) are argued to be a result of ellipsis as well.

(9) *Er will jemandem schmeicheln, aber sie wissen*  
 he wants someone.DAT flatter but they know  
*nicht, \*wer /\*wen /wem.*  
 not who.NOM who.AKK who.DAT  
 ‘He wants to flatter someone, but they don’t know who.’

(adapted from Merchant 2001, p. 89)

(10) *Sie wissen nicht, \*wer /\*wen /wem*  
 er  
 They know not who.NOM who.AKK who.DAT he  
*schmeicheln will*  
 flatter wants  
 ‘They don’t know who he wants to flatter.’

Kommentiert [MS6]: Andere Quelle nutzen

Kommentiert [MS7]: Check if Stainton really believes in syntactic ellipsis?

Kommentiert [MS8R7]: Vielleicht auch lieber einfach Merchant nehmen

Kommentiert [MS9]: For Zotero entry, see “Syntax of silence” in UB (not a PDF)

(adapted from Merchant 2001, p. 90)

That is, (8) the elliptical wh-phrase is structurally similar to (9) but parts of the phrase are unpronounced. This assumption is supported by the fact that the elliptical wh-phrase *wem* in (8) must be marked with the same case as in the nonelided structure in (9) (cf. Merchant 2004).

Merchant (2001) argues for the so-called *move-and-delete approach*, henceforth MDA. [continue here after getting Merchant 2001 from the library]

Griffiths 2019

As becomes apparent from the examples discussed in this subchapter, there are different types of ellipsis. The licensing conditions vary for different types of ellipsis and remain a subject of contention (see Merchant 2019 for discussion and references in there). In the following, I focus on a specific type of ellipsis that plays a major role in the present study: fragments.

For a first understanding of fragments, consider (10).

- (11) Abby and Ben are at a party. Abby asks Ben about who their mutual friend Beth is bringing as a date by uttering: "Who is Beth bringing?" Ben answers:  
"Alex."

(Merchant 2004, p. 661)

Ben's answer *Alex* in (10) only consists of one word and yet, the reader can easily be derived that it is intended to convey that Beth is bringing Alex. Linguistic expressions such as Ben's answer are called fragments (cf. Merchant 2004). Contrary to the other types of elliptical structures exemplified in (6-9), fragments are not wh-phrases and (other differences and source?).

According to the sententialist approach as proposed by Merchant (2001), fragments are the only pronounced item in a full-fledged yet unpronounced clause. That is, while clausal ellipsis suppresses the phonological realization of most parts of the sentence, one or more subconstituents of the clause survive ellipsis. These remnants of ellipsis are called fragments.

**Kommentiert [MS10]:** Yet to find the book

**Kommentiert [MS11]:** A better way to phrase it would be:  
Remnants of ellipsis (henceforth, fragments) ....

**Kommentiert [MS12]:** Probably write again after reading Merchant 2001 and making sure it's not a direct copy of Griffith et al 2023

Include constraint in Griffiths 2019, p. 21, formulated in (63)

→ Includes fragmentary answer, contrast, and focus

- Theory and hypotheses

## 2.2 Contrastive focus

Before examining contrastive fragments, the notion of *contrastive focus* is explained and illustrated with examples. Subsequently, the chapter directs its attention specifically towards fragments that incorporate contrastive focus.

The notion of *focus* is commonly associated with the element of an utterances that adds new information to the discourse (cf. Lambrecht 1994). A more elaborate definition would exceed the scope of this investigation and is not essential for comprehending the definition of contrastive focus. Contrastive focus is a specific type of focus and can be defined as follows.

- (12) Contrastive focus represents a subset of contextually or situationally “given” alternative elements for which the predicate phrase can potentially hold, and spells out this subset as the one for which the predicate actually hold.  
(Griffiths & Lipták 2014, p. 200, quotation marks in original)

However, the alternative denotations must be of the same type and mutually exclusive (cf. Wagner 2012, Krifka 2008). An example of contrastive focus is illustrated in (12), where the brackets subscripted with *F* indicate the constituent in focus.

- (13) A: Mary stole the cookie.  
B: No, [Peter]<sub>F</sub> stole the cookie!  
(adapted from Krifka 2008, p. 252)

The sentence in (12A) is called antecedent clause, while speaker B's answer is named a contrastive utterance, since *Mary* and *Peter* are contrasting. Moreover, contrastive focus is placed on *Peter* in accordance with the definition in (11). As can be seen in (12B), the contrastive focus placed on *Peter* serves to emphasize *[[Peter]]* as an “alternative answer to an explicit or implicit statement provided by the previous discourse/situation” (Wagner 1999, p. 1529).

After examining (12B), which represents a full correction, now consider the fragmentary equivalent (13B).

- (14) A: Mary stole the cookie.  
B: No, [Peter]F!

(adapted from Krifka 2008, p. 252)

The full correction in (12B) and the elliptical correction in (13B) have the same semantic meaning and pragmatic function, despite of the fact that (13B) only consists of a fragment. This is because fragmentary answers are assumed to be structurally identical to full sentences, as discussed in chapter 2.1, and contrastive focus is placed on *Peter* in both (12B) and (13B).

Contrastive fragments are a specific type of fragments. Contrary to other fragments, contrastive fragments include “an explicit relation of contrast between the elliptical remnant and its correlate in the antecedent clause” (Griffiths & Lipták 2014, p. 199, emphasis omitted). In the dialogue in (13), this is illustrated by the contrast between *Peter* and *Mary*, as these words denote contrasting referents. Therefore, contrastive fragments can be used for corrections and always include contrastive focus (cf. Krifka 2008, Griffiths & Lipták 2014).

Contrastive focus has often been characterized phonologically with a L+H\* pitch for English and German (cf. Wagner 1999)<sup>1</sup>. The importance of not only pitch accents on elements in contrastive focus but the role emphasis in the comprehension of fragmentary answers in general is explained in the following subchapter.

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<sup>1</sup> For the description of pitch accent and other intonational patterns, the ToBI labeling by Beckman & Ayers (1997) will be used.

### 2.3 The comprehension of fragmentary answers

This section explores the impact of emphasis on sentence comprehension. First, the process of the comprehension of elliptical structures is explained. Then, I discuss to what extent emphasis and at-issueness plays a role in said process.

Comprehending any utterance requires the evaluation and processing of information, i.e., organize lexical meaning and understanding syntactic structures (cf. Harris & Carlson 2018). This is particularly difficult for elliptical structures such as dialogues involving fragmentary answers, since the syntactic structure is not present and has to be constructed by the processor, i.e., hearer or reader of the dialogue (cf Phillips & Parker 2014). For comprehending elliptical structures, the processor must finish the following three basic tasks.

- (15) Basic tasks of the processor in ellipsis processing:
1. Parse the remnant by constructing the appropriate phrase structure for the remnant given the input.
  2. Locate the correlate, if any, from the antecedent clause.
  3. Construct the elided phrase by regenerating or copying a structure at Logical Form

(Harris & Carlson 2018, p. 485)

In the example (13B), that means that first, *Peter* is identified as remnant. Next, *Mary* is retrieved as correlate to *Peter*, as it appears to be a suitable contrasting denotation. Lastly, the elided phrase is contrasted, i.e., *Peter<sub>i</sub> stole the cookie t<sub>1</sub>* (cf. Harris & Carlson 2018).

Prosody is known for impacting language processing (cf. Warren 1999). However, the influence of intonation and emphasis is especially intriguing for the processing of ellipsis sentences and for structures involving contrastive focus. As mentioned in the chapter 2.2, Contrastive focus has been characterized phonologically with a L+H\* pitch for English and German (cf. Wagner 1999). This leads to the hypothesis that prosodically marking contrasting words may enable the listener to access these words swiftly and effortlessly, ultimately facilitating a clearer comprehension of the contrast. Carlson et al. (2009) investigated whether pitch accent affects how ambiguous replacive sentences such as (7) are interpreted.



- (1) a. ROGER insisted that Alice was reliable // not ANDREW[.]  
 b. Roger insisted that ALICE was reliable // not ANDREW[.]  
 c. ROGER insisted that ALICE was reliable // not ANDREW.  
 (Carlson et al. 2009, p. 1077)

Indeed, they found that pitch accent significantly influenced participants' choice of the correlate of the replative, i.e., whether the expression *Andrew* is used to replace *Roger* or *Alice*. There are two main differences between the sentences used in the study by Carlson et al. (2009) and the sentences used in the present study. First, the former uses replative sentences, while the latter uses fragmentary answers. Since both are forms of ellipsis, it is still reasonable to compare the results. Second, the former uses ambiguous sentences, while the latter uses sentences disambiguated using **case marking**. Although the prosodic marking is not used to choose the current correlate, it allows the hypothesis that contrasting words with emphasis are easier to understand(?) and therefore, the first hypothesis holds that stimuli with emphasis on contrasting words are rated more natural than stimuli without any orthographic marking or with prosodic marking on a word other than the contrasting word. Additionally, the same should hold for words with orthographic markings since they are also emphasized and therefore more easily accessible in the discourse representation.

**Kommentiert [MS13]:** Give example with DAT in glosses

Rasekhi & Harris (2021)

- investigate importance of each factor used to interpret clausal ellipsis
- in Persian
- focus on Locality and Parallelism
- necessary for ellipsis processing based on definition by Harris & Carlson
  - o Locality
    - See Harris 2015 and Harris & Carlson 2016 for Locality bias
    - “processer prefers to contrast the remnant with the closest possible DP, typically the object” (p. 4), re-formulation of locality bias defined in literature mentioned above
    - See also Frazier & Clifton 1998, Carlson et al. 2009

- Violating this preference leads to a processing cost (p. 5)
- “licensing of ellipsis is sensitive to information status of constituents [...] One information structural explanation of the Locality bias is that the closest DP is preferred not because it is linearly more accessible, but because it bears pitch accent by default” (p. 5)
- **“In silent reading, comprehenders thus default to the object DP as the location for contrastive accent. However, information structural factors, such as explicit and implicit marking of pitch accent or the location of a contrastive adjective (11), may overturn the default, so that a remnant is paired with a non-local correlate” (p. 5)**
- In German: usually disambiguated morphologically by e. g. der/den
- Parallelism
  - e. g. both with DP object, similar thematic roles, matched prosodic weight
  - In general: processing advantage when conjuncts are parallel,
  - With ellipsis: comprehension cost if subjects differ in number (singular or plural)
  - Dimensions of parallelism: structural, prosodic, semantic
  - DP Parallelism Hypothesis: The processor favors analyses in which DPs that share internal properties (have similar syntactic, prosodic, and semantic features) share external properties (appear in similar structural positions within their respective clauses or phrases), and vice versa (p. 6)
  - Morphological Parallelism: The processor favors correlate-remnant pairings for which the DPs are maximally similar along semantic and morphological dimensions. (p. 7) [especially for German]
- See general discussion for discussion effect of Locality and Parallelism in online versus offline processing
- results

information structure and parallelism strongly influence correlate resolution in both tasks, but that a weaker preference for a local correlate emerges in scrambling in the sentence completion task

→ See more papers on sentence comprehension (literature overview)

Include literature on emphasis and perhaps at-issueness?

## 2.4 Previous studies on functional and lexical stimuli

X

Falls es dazu nichts in der Literatur gibt, dann Subchapter löschen und ebenso bei Beispiel (3) herausnehmen

## 2.5 Acceptability judgment tasks (AJTs) in linguistics

This sections provides an overview of acceptability judgment tasks, henceforth AJTs, and ... informal and formal methods and explains why acceptability judgments are a reliable source of?

More than 60 years ago, acceptability judgments were initially suggested as a substitute for assessing grammaticalness of syntactic theories. Chomsky (1957) proposed that “[o]ne way to test the adequacy of a grammar proposed for [a language] is to determine whether or not the sequences that it generates are actually grammatical, i.e., acceptable to a native speaker” (p. 13).

Although AJTs are conducted to investigate the syntactic structures of a language, the term *grammaticality judgment* is misleading, as it assumes that participants have the ability to access their implicit knowledge about language. Instead, the term *AJT* is used to clarify that based on the acceptability of certain structures, one can gain insights about the grammaticality of the respective syntactic patterns (cf. Sprouse et al. 2013).

In the following, the term *informal method* refers to AJTs that were conducted with a low number of participants and that are associated with scale biases, judgment errors, etc. In contrast, the term *formal method* is used to describe AJTs, adhering to experimental standards, i.e., a common rating scale, a sufficient number of participants, etc. (cf. Juzek 2016). As the present study uses a 7-point Likert scale, the comparison of different AJTs

**Kommentiert [MS14]:** No pdf found online, Cite in Zotero according to details on Uni Tü Bib katalog

**Kommentiert [MS15R14]:** Chomsky, Noam. 1957. Syntactic Structures. The Hague, The Netherlands: Mouton de Gruyter.

**Kommentiert [MS16R14]:** <https://rds-tue.ibs-bw.de/opac/RDSIndex/Search?join=AND&bool0%5B%5D=AND&lookfor0%5B%5D=chomsky&lookfor0%5B%5D=Syntactic+Structures&type0%5B%5D=au&type0%5B%5D=ti&page=2>

only considers informal methods on the one hand and Likert scales as formal method on the other hand, leaving out other formal methods such as magnitude estimation, two-alternative forced-choice, etc. For a description of each method and an in-depth analysis of what methods are appropriate to conduct acceptability judgment, the reader is referred to Sprouse et al. (2013). The study opted for a multi-point scale, as it allows for statistical analysis of the judgments, including calculating sample means, standard deviations, and assessing the significance of the effects under investigation (cf. Featherston 2008).

The 7-point Likert scale used in the present study asked participants to rate each dialogue presented in the experiment on a scale from 1 to 7, representing varying degrees of acceptability. In contrast to the typical scale where 1 represents complete unacceptability and 7 signifies full acceptability, the labeling in this study was reversed. This decision was influenced by the fact that in German schools, 1 is associated with the highest grade. By exclusively recruiting native German speakers residing in Germany, who presumably attended school with such grading, it is expected that this labeling scheme would be more intuitive for them, thereby reducing errors resulting from misinterpretation. That is, in the present experiment, 1 was labeled as *fully acceptable* and 7 as *fully unacceptable*. A 7-point scale was chosen because it allows participants to identify structures that are neither acceptable nor unacceptable (cf. Sprouse et al. 2013).

Hier ggfs. Kapitel zu forced choice einfügen

Recently, auditory stimuli have been adopted by AJTs as a substitution for written stimuli (Quellen). This is particularly beneficial when examining structures that are uncommon in written language or necessitate prosodic cues for a comprehensive understanding of the syntactic structure. Therefore, auditory stimuli are deemed suitable in such cases (cf. Sedarous & Namboodiripad 2020). For an overview of the importance of emphasis in sentence comprehension, see chapter 2.5.

Juzek (2016) investigated whether the mode of stimuli influences participants' ratings in AJTs. That is, he stated as a null hypothesis that either the ratings are the same for both written and auditory stimuli. As an alternative hypothesis, he proposed that constructions that are more common in

**Kommentiert [MS17]:** Brauche ich dafür auch eine Quelle?

**Kommentiert [MS18]:** Gffs. Nochmal korrigieren

**Kommentiert [MS19]:** Noch einfügen

**Kommentiert [MS20]:** Noch einfügen

**Kommentiert [MS21R20]:** Auditory stimuli of syntactic structures:  
Ritchart et al. 2016  
Slimik & Wierzbica 2015  
Lau & Ferreira 2005  
For references see S & N 2020  
Also include other references

spoken language receive higher acceptability ratings as auditory stimuli and constructions that are more common in written language receive higher acceptability ratings as written stimuli. In his experiment, the difference between commonly used written and spoken constructions as written and auditory stimuli, respectively, lacked significance. Hence, the null hypothesis could not be rejected. However, the experiment investigated resumptive pronouns. As the present study examines dialogues involving contrastive focus and fragmentary answers, the intonation of those sentences perhaps plays a larger role than for sentences with resumptive pronouns. Therefore, it might be that a significant difference in the mode of stimuli can be found in the present study. For a justification of the present methodology, see chapter 3.1.

As a final aspect, the limitations of AJTs are addressed to provide a comprehensive overview of this methodology. First, AJTs are inherently subjective and hence, leading to a high degree of variations. However, through a sufficient number of participants, reliable results are ensured in the present study. Second, although a 7-point Likert scale is more fine-grade than binary acceptability judgment, it still may be too general to capture the full range of variation and subtleties in native speakers' intuition. Furthermore, it is worth noting that in some cases, there might be a lack of contextual information, potentially hindering the resemblance to natural language use and compromising the reliability of judgments. However, in the current experiment, considerable efforts were made to select stimuli that minimize the risk of misunderstandings. Additionally, the inclusion of seven stimuli per condition serves to further reduce this risk and enhance the reliability of the results.

### 3. Data and method

This chapter presents an overview of the study design, stimuli selection, recording procedures, data collection, participant recruitment and characteristics, and data analysis methods. I discuss the rationale, procedures, and considerations involved in each aspect.

#### 3.1 Study design

The experiment was conducted using a 2 (modality: written or auditory) x 2 (emphasis: with or without emphasis) x 2 (fragment-type: functional or lexical word) study design. Therefore, eight conditions were tested by using three binary factors. A between-subject design was employed to examine the effects of modality, while a within-subject design was utilized to investigate the influence of emphasis and fragment-type. The chosen study design aims to mitigate participant perplexity or skepticism arising from varying modalities and to ensure that any observed differences in results for stimuli with different emphasis and fragment types are attributable to their influencing factors rather than participant variability. This design selection safeguards against potential confounding factors, reducing individual differences and increasing the sensitivity to detect effects.

In the study, participants were asked to rate dialogues in the naturalness. The AJT was an ordinal response task on a 7-point Likert scale. The scale ranged from 1, representing fully acceptable structures to 7, indicating full unacceptability. Prior, fully acceptable, fully unacceptable, and neither acceptable nor unacceptable examples were given in the introductory part to the study. This methodological choice was motivated by several factors. First, the 7-point Likert scale offers an appropriate range of response options, allowing participants to express nuanced judgments effectively. It includes a balanced midpoint that signifies structures perceived as neither acceptable nor unacceptable, as discussed in chapter on 2.4. Second, the inclusion of auditory stimuli allows us to capture the full range of linguistic cues present in natural speech. Dialogues, particularly those involving contrastive focus and fragmentary answers, often rely on prosodic features, as discussed in more detail in 2.5. By presenting participants with auditory stimuli, we provide them with a more ecologically valid representation of

these linguistic cues compared to written stimuli alone. Third, including written stimuli alongside auditory ones allows us to explore potential differences or convergences in acceptability judgments between the auditory and written presentations, shedding light on the role of modality in the perception of naturalness, specifically for fragments and contrastive focus.

The experiment was designed as follows. After a welcoming page, participants were presented with three dialogues (15-17) that had a similar structure to the critical and filler items of the experiment and varying acceptability ratings. The dialogues did not include the variables that were investigated in the experiment. However, through the introduction of similar dialogues, participants became familiar with the rating scale. Moreover, it was ensured that all participants understood that the study aims to determine what sentences would be acceptable in daily speech contrary to written language (cf. Sedarous & Namboodiripad 2020). Note that the glossing and translation is given in (15-17), while participants were only presented with only the German sentences.

- (2) A: *Was mag Peter?*  
 what likes Peter  
 'What does Peter like?'  
 B: *Peter mag Ingwer.*  
 Peter likes ginger  
 'Peter likes ginger.'  
 (adapted from Sedarous & Namboodiripad 2020, p. 7)
- (3) A: *Was hat Peter gestern gemacht?*  
 what AUX Peter yesterday did  
 'What did Peter do yesterday?'  
 B: *\*Vater Fußball gestern.*  
 father football yesterday  
 'father football yesterday.'  
 (ibid.)
- (4) A: *Hat Peter inzwischen aufgegeben?*  
 AUX Peter by.now gave.up  
 'Has Peter given up by now?'  
 B: *?Nein, das Handtuch, das würde er*  
 no the towel that AUX he  
*bestimmt nie werfen!*  
 certainly never throw  
 'No, the towel, he would certainly never throw that in!'  
 (adapted from Wierzba et al. 2023)

Participants are instructed that their acceptability ratings should be based on only speaker B's response to speaker A's utterance. While (15) is described to the participants as *fully acceptable*, (16) is identified as *fully unacceptable* and (17) is used as an example of an utterance that is *neither acceptable nor acceptable*.

After the introductory pages, participants were randomly assigned to either only written or auditory stimuli and then presented with seven items of each variable, i.e., with and without emphasis of contrasting words as well as functional and lexical fragments. In total, 56 critical items, including written and auditory items, were used for the study. However, since each participant was assigned to either written or auditory stimuli, each participants encountered 28 critical items and 28 filler items. The critical, written items were equally distributed across the four conditions, i.e., with and without orthographic marking as well as lexical or functional fragment types. Similarly, the critical, auditory items were equally distributed across the four conditions, i.e., with and without prosodic marking on the contrasting words as well as lexical or functional fragment types. Therefore, each condition is exemplified by 7 items in each run of the experiment. This balanced design allows for a systematic examination of the effects of emphasis and fragment types on the experimental variables.

At the end of the questionnaire, participants were asked to indicate their age, level of education, where they grew up, and native language/dialect.

**Kommentiert [MS22]:** Check if that is correct or what else they were asked to indicate

### 3.2 Selection of stimuli

This section gives an overview of the selected stimuli for the study and the rationale behind their choice. The list of written critical and filler items can be found in the appendix, while their verbal equivalents can be found here: <https://shorturl.at/blwGM>. An exemplary overview of all conditions is shown in (1-4), repeated here as (18-21).

- (5) A: Peter hat AB 18 Uhr im Kino gearbeitet.  
'Peter worked at the cinema FROM 6pm.'  
B: Nein, BIS 18 Uhr.  
'No, UNTIL 6pm.'



(own example)

- (6) A: Peter hat ab 18 Uhr im KINO gearbeitet.  
'Peter worked at the CINEMA from 6pm.'  
B: Nein, BIS 18 Uhr.  
'No, UNTIL 6pm.'

(own example)

- (7) A: Peter hat dem POLIZISTEN seinen Ausweis gezeigt.  
'Peter showed his identity card to the POLICE OFFICER.'  
B: Nein, dem TÜRSTEHER.  
'No, the BOUNCER.'

(own example)

- (8) A: Peter hat dem Polizisten seinen AUSWEIS gezeigt.  
'Peter showed his IDENTITY CARD to the police officer.'  
B: Nein, dem TÜRSTEHER.  
'No, the BOUNCER.'

(own example)

Several steps were taken to ensure minimize the influence of extraneous factors. First, the contrasting words in the stimuli with functional fragment type incorporated the prepositions *bis* 'until' and *ab* 'from', *mit* 'with' and *ohne* 'without' as well as *nach* 'after' and *vor* 'before', as these demonstrate opposite meanings.

Second, for the lexical fragments and their correlates, the contrasting nouns all denoted human referents to. Moreover, only masculine nouns marked with dative case were chosen to stand in contrastive focus to ensure that the reader or hearer can unambiguously identify the correlate of the fragment.

Third, critical items were adjusted to be in past tense to ensure that the word in contrastive focus is not in final position, as this position is claimed to be a default location (cf. Harris & Carlson 2018/ Carlson et al. 2009??). Therefore, fragments that correlate(?) to a word or phrase in this position are more likely to be accepted than if the correlate is inside the clause (Quelle).

Next, the sentences were created in such a way that stimuli with lexical fragments include ditransitive verbs, while stimuli with functional fragments, that must include a preposition phrase based on the study design, only include transitive verbs, as can be seen in the example (18-21). Therefore, a comparatively equal length of all stimuli is guaranteed

**Kommentiert [MS23]:** Look up again and re-formulate. Literature: utterance-final effect (Griffiths & Lipták 2014, p. 202, footnote 10; Barros et al. 2014 )

**Kommentiert [MS24R23]:** James said that any fragment that correlates with final position is accepted

Last, the contrasting words are either orthographically or prosodically marked in the condition with emphasis on the one hand, but in the condition without emphasis, on the other hand, the stimuli either do not contain any orthographic marking or the nuclear accent is not on the contrasting word but on the default position (cf. Féry 2011). The orthographic marking involved writing the respective words in capital letters and **bold font**. For an overview of stimuli with prosodical marking and stimuli with default intonation, see chapter 3.3.

A total of 56 critical items were selected for the study. However, due to the study's design, each participant only encountered 28 items. This was because participants were randomly assigned to either the written or auditory stimuli group. In addition, 28 filler items were included in the study.

Filler items involved dialogues that incorporated either non-fragmental contrast such as in (22) or dialogues without any contrast such as (23). The order of critical and filler items was randomly arranged, with each item being presented on its own individual page.

- (9) A: *Peter hat die SÜDDEUTSCHE gelesen.*  
           Peter     AUX the   Süddeutsche     read  
           ‘Peter read the Süddeutsche.’  
       B: *Nein, er hat die FAZ gelesen.*  
           no       he   AUX the   FAZ read  
           ‘No, he read the FAZ.’

(own stimuli)

- (10) A: *Peter hat in der Mensa zu Mittag*  
           Peter     AUX in   the   canteen   for   lunch  
           *gegessen.*  
           ate  
           ‘Peter had lunch in the canteen.’  
       B: *Ja, zusammen mit Freunden.*  
           yes together     with friends  
           ‘Yes, together with friends.’

(own stimuli)

The acceptability of the fillers varied. The filler in (22) and (23) represent structures associated with full acceptability. The fillers in (24) and (25) signify complete unacceptability.

- (11) A: *Peter hat mit Freunden UNO gespielt.*  
           Peter     AUX with friends    UNO     played

Kommentiert [MS25]: Oder nur capitals?

Kommentiert [MS26]: Die Stimuli sind eigentlich von Featherston, aber er hat meines Wissens nirgends seine Materialien publiziert, deswegen kann ich es nicht zitieren. Fußnote?

'Peter played UNO with friends.'  
 B: \**Nein, beim Stammtisch die Freunde*  
       no at.the regulars' table the friends  
       *haben mit Vorliebe SKAT gespielt.*  
       AUX with preference Skat played  
 'No, at the regular's table the friends played skat with  
 preference.'

(own stimuli)

(12) A: *Peter hat seinem Sohn ein Geschenk*  
       Peter AUX his son a gift  
       *gemacht.*  
       made

'Peter gave a gift to his son.'

B: \**Ja, ein Fahrrad in die Schule zum Fahren.*  
       yes, a bike to the school for riding  
       'Yes, a bike to the school for riding.'

(own stimuli)

**Kommentiert [MS27]:** Die Stimuli sind eigentlich von Featherston, aber er hat meines Wissens nirgends seine Materialien publiziert, deswegen kann ich es nicht zitieren. Fußnote?

**Kommentiert [MS28]:** Die Stimuli sind eigentlich von Featherston, aber er hat meines Wissens nirgends seine Materialien publiziert, deswegen kann ich es nicht zitieren. Fußnote?

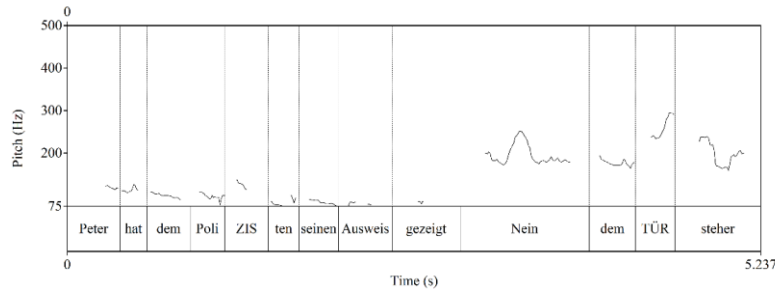
To ensure consistency, all stimuli, i.e., critical and filler items, were adjusted to be in past tense and start with *Peter*. Moreover, the filler items with non-fragmental contrast included orthographic or prosodic marking on the contrasting words, while the dialogues without contrasts did not incorporate such marking.

### 3.3 Recording of stimuli

In this section, I delve into the critical process of recording stimuli, discussing the methodologies and considerations involved in capturing high-quality audio or visual materials for the present research study.

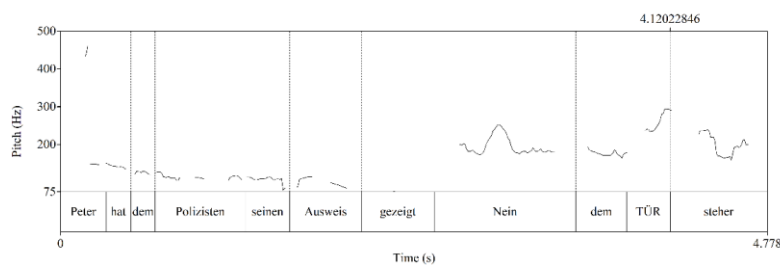
Stimuli were recorded in the open-source toolkit Praat in a soundproof room, using a Blue Snowball ICE microphone and saved to be in WAV-format. Silences before and after the sentences were cut out of the sound files. As each stimulus represents a dialogue, the two parts had to be recorded individually. Each part of every stimulus was recorded three times, of which the one with the highest clarity, intelligibility, and adherence was chosen for the experiment. The first part was recorded by the voice actor Roman Pertl, henceforth speaker A. The second part was recorded by the author, henceforth speaker B. Both speakers are native German speakers, were familiar with the sentence prior to the recording, and had the opportunity to re-record any sentence indefinite times. All sentences were recorded by condition (cf.

Sederous & Namboodiripad 2020). To demonstrated this, the pitch contour of the stimuli (20) and (21) in chapter 3.2 are illustrated in Figure 1 and 2.



**Figure 1:** Pitch contour of stimuli with emphasis

Figure 1 shows the recorded intonation of the stimulus (20), that includes the emphasis of the contrasting words *Polizisten* ‘police officer’ and *Türsteher* ‘bouncer’. Both word are marked with L+H\* accent. The intonational contour of the preceding sentence in Figure 1 stands in stark contrast with its equivalent in Figure 2. Speaker A’s sentence in Figure 2 shows consistent, natural intonation. That is, the preverbal position, i.e., on the word *Ausweis* ‘identity card’, represents the default sentence accent (cf. Féry 2011). As becomes apparent in the pitch contours, the stimuli differ in whether the word *Polizisten* ‘police officer’ is emphasized or not. While *Polizist* in the stimulus displayed in Figure 1 received L+H\* accent, it is de-accented in the stimulus in Figure 2. Note that the apparent distinction in pitch between the speakers is attributable to the gender contrast (cf. Simpson 2009), with the first speaker being male and the second speaker being female.



**Figure 2:** Pitch contour of stimuli without emphasis.

The recording of speaker B, that places L+H\* accent on the contrasting word *Türsteher* 'bouncer', were used for both conditions. That is, when combining the parts of speaker A and speaker B, the same recording of speaker B was used for the stimuli in the conditions with and without emphasis in the preceding sentence to ensure consistency and minimize confounding factors. Given that the contents of the sentences as well as the fragmentary answers were identical, the stimuli depicted in Figure 1 and Figure 2 solely vary in terms of the emphasis placed on *Polizisten* 'police officer'. This deliberate difference serves to eliminate alternative explanations for the observed outcomes, strengthening the validity of the results.

After the recording, the audio files of each speaker were concatenated in Praat. Therefore, each stimulus is composed of two merged audio files, seamlessly transitioning from the first to the second audio file without any audible disruptions or breaks.

Next, the audio files were controlled for loudness in Praat using the plugin (<https://www.praatvocaltoolkit.com/normalize.html>). The raw recordings as well as the combined, neutralized recordings can be found here: <https://shorturl.at/pCHM6>.

### 3.4 Data collection

In this chapter, the data collection process employed in our research study, which involved gathering acceptability judgments from participants, is discussed. I will outline the methods employed to obtain these judgments, including participant recruitment, experimental design, and data collection procedures.

Paragraph on prolific/clickworker/etc

Paragraph on collection procedure (see the respective chapter 3.1 on study design but go into more detail about the presentation format of stimuli, likert scale, control measures, etc.)

Age and geography must be controlled for!!

Paragraph of managing and organizing of collected data for analyses, data cleaning, etc.

Participants are asked the following question about the dialogues in the experiment.

- (13) Wie natürlich klingt die Antwort der Sprecherin B?  
'How natural does speaker B's response sound?'  
(adapted from Featherston 2008, p. 6)

x

### 3.5 Participant recruitment and characteristics

Pilot study showed that sex and education play no significant role but age and geography must be controlled for (in CLEFS project summary gelesen, Quelle herausuchen)

German native speakers

### 3.6 Data analysis

Provide details about the data, including corpus composition and size

Participants' Likert scale responses were z-scored and analyzed using Linear Mixed Models, using R 3.2.3 (cf. R Development Core Team 2015).

**Kommentiert [MS29]:** Check if that is actually the version that was used

Describe any qualitative analysis conducted to identify linguistic patterns and factors that influence fragment acceptability

**Kommentiert [MS30]:** See Harris & Carlson 2018 references for how to cite them

For LMMs see Winter 2013

For the use of z-scores in linguistics see Juzek 2013 chapter 3.2.2 and check references in there

## 4. Results

x [split into more subchapters, e.g., written versus auditory?]

Present quantitative findings

## 5. Discussion

Since

### 5.1 Interpretation of the findings

X

discuss any significant findings or trends in quantitative findings

Present qualitative findings, providing interpretations and insights

### 5.2 Comparison with previous studies and theoretical predictions

X

Highlight similarities and differences

### 5.3 Implications for the understanding of German fragments

X

Discuss the broader implications of your findings for the field of fragment acceptability and related research areas

## 6. Conclusions

This paper gives an overview of the

### 6.1 Summary of findings

X

Main findings of the research

### 6.2 Contributions to the field

X

Highlight contributions of your research to the existing body of knowledge

### 6.3 Limitations of the study

X

Discuss any limitations or potential biases that may have affected your research

What could not be answered?

#### 6.4 Suggestions for future research

X

What aspects need further research?



7. References

X

Insert references from Zotero

## 8. Appendix

### 8.1 Abbreviations, symbols and other notational conventions

|                   |                                                   |
|-------------------|---------------------------------------------------|
| ?                 | questionable/marginal acceptability               |
| #                 | infelicitous                                      |
| *                 | ungrammatical                                     |
| $1 \dots t_1$     | syntactic movement                                |
| —                 | omitted linguistic material                       |
| $XP^i \dots YP^i$ | coreference                                       |
| //                | intonational phrase boundary                      |
| CAPITAL LETTERS   | emphasis (orthographical marking or pitch accent) |
| [...]F            | focused position                                  |
| [[...]]           | denotation/semantic representation                |
| L+H*              | pitch accent                                      |
| A, B, ...         | speaker                                           |
| ACC               | accusative                                        |
| AJT               | acceptability judgment tasks                      |
| A-movement        | argument movement                                 |
| ASG               | adposition stranding generalization               |
| CLMM              | cumulative linear mixed model                     |
| DAT               | dative                                            |
| iff               | if and only if                                    |
| ISG               | island sensitivity generalization                 |
| MDA               | move-and-delete approach                          |
| NOM               | nominative                                        |
| p-omission        | preposition-omission                              |
| p-stranding       | preposition-stranding                             |
| SQA               | syntactic question approach                       |

**Kommentiert [MS31]:** Check the entire list to see which abbreviations were even used in the thesis

## 8.2 List of critical items

The following list of critical items only includes written items. The auditory critical items can be found here: <https://shorturl.at/iwR78>.

- (1) A: Peter hat seinem **BRUDER** ein Buch geschenkt.  
B: Nein, seinem **VATER**.
- (2) A: Peter hat seinem Bruder ein **BUCH** geschenkt.  
B: Nein, seinem **VATER**.
- (3) A: Peter hat dem **POLIZISTEN** seinen Ausweis gezeigt.  
B: Nein, dem **TÜRSTEHER**.
- (4) A: Peter hat dem Polizisten seinen **AUSWEIS** gezeigt.  
B: Nein, dem **TÜRSTEHER**.
- (5) A: Peter hat seinem **CHEF** den neuen Mitarbeiter vorgestellt.  
B: Nein, seinem **KOLLEGEN**.
- (6) A: Peter hat seinem Chef den neuen **MITARBEITER** vorgestellt.  
B: Nein, seinem **KOLLEGEN**.
- (7) A: Peter hat dem **MALER** ein Getränk angeboten.  
B: Nein, dem **GÄRTNER**.
- (8) A: Peter hat dem Maler ein **GETRÄNK** angeboten.  
B: Nein, dem **GÄRTNER**.
- (9) A: Peter hat seinem **KOLLEGEN** Urlaubsbilder gezeigt.  
B: Nein, seinem **NACHBARN**.
- (10) A: Peter hat seinem Kollegen **URLAUBSBILDER** gezeigt.  
B: Nein, seinem **NACHBARN**.
- (11) A: Peter hat seinem **NEFFEN** Werkzeug geschenkt.  
B: Nein, seinem **NACHBARN**.
- (12) A: Peter hat seinem Neffen **WERKZEUG** geschenkt.  
B: Nein, seinem **NACHBARN**.
- (13) A: Peter hat seinem **VORGESETZTEN** einen Kaffee gebracht.  
B: Nein, seinem **MITBEWOHNER**.
- (14) A: Peter hat seinem Vorgesetzten einen **KAFFEE** gebracht.  
B: Nein, seinem **MITBEWOHNER**.
- (15) A: Peter hat **AB** 18 Uhr im Kino gearbeitet.  
B: Nein, **BIS** 18 Uhr.
- (16) A: Peter hat ab 18 Uhr im **KINO** gearbeitet.  
B: Nein, **BIS** 18 Uhr.
- (17) A: Peter hat **BIS** August Miete gezahlt.  
B: Nein, **AB** August.
- (18) A: Peter hat bis August **MIETE** gezahlt.  
B: Nein, **AB** August.
- (19) A: Peter hat **MIT** seinem Bruder Unterschriften gesammelt.  
B: Nein, **OHNE** seinen Bruder.
- (20) A: Peter hat mit seinem Bruder **UNTERSCHRIFTEN** gesam-

**Kommentiert [MS32]:** Link to PRIVATE repository.  
Publish repository? Or publish recordings somewhere else?

- melt.
- B: Nein, **OHNE** seinen Bruder.
- (21) A: Peter hat **OHNE** sein Team einen Vortrag gehalten.  
B: Nein, **MIT** seinem Team.
- (22) A: Peter hat ohne sein Team einen **VORTRAG** gehalten.  
B: Nein, **MIT** seinem Team.
- (23) A: Peter hat **VOR** seiner Mittagspause seine Chefin angerufen.  
B: Nein, **NACH** seiner Mittagspause.
- (24) A: Peter hat vor seiner Mittagspause seine **CHEFIN** angerufen.  
B: Nein, **NACH** seiner Mittagspause.
- (25) A: Peter hat **NACH** seinem Urlaub den Handwerker gerufen.  
B: Nein, **VOR** seinem Urlaub.
- (26) A: Peter hat nach seinem Urlaub den **HANDWERKER** gerufen.  
B: Nein, **VOR** seinem Urlaub.
- (27) A: Peter ist **VOR** seinem Einkauf noch zur Bank gegangen.  
B: Nein, **NACH** seinem Einkauf.
- (28) A: Peter ist vor seinem Einkauf noch zur **BANK** gegangen.  
B: Nein, **NACH** seinem Einkauf.

### 8.3 List of filler items

The following list of filler items only includes written items. The auditory filler items can be found here: <https://shorturl.at/jsHV1>. The acceptability of the fillers varied, with A representing full acceptability, B indicating some acceptability, C denoting neutrality in terms of acceptability, D implying partial unacceptability, and E signifying complete unacceptability.

- A1 A: Peter hat in der Mensa zu Mittag gegessen.  
B: Ja, zusammen mit Freunden.
- A2 A: Peter hat den Gegenspieler vorsätzlich gefoult.  
B: Ja, den Stürmer.
- A3 A: Peter hat die **SÜDDEUTSCHE** gelesen.  
B: Nein, er hat die **FAZ** gelesen.
- A4 A: Peter hat einen **ERDBEERKUCHEN** gebacken.  
B: Nein, er hat einen **SCHOKOKUCHEN** gebacken.
- A5 A: Peter hat den **KAFFEE** gekocht.  
B: Nein, er hat den **TEE** gekocht.
- B1 A: Peter hat dem Fürsten jemanden empfohlen.  
B: Ja, dem Fürsten den Maler.
- B2 A: Peter hat dem Gast ein Getränk empfohlen.  
B: Ja, dem Gast den Wein.
- B3 A: Peter hat seinem Neffen ein Geschenk gegeben.  
B: Ja, seinem Neffen ein Fahrrad.

**Kommentiert [MS33]:** Link to github, however repository is private! Publish repository?

- B4 A: Peter hat geglaubt, dass sein **CHEF** Urlaub hat.  
B: Nein, er hat geglaubt, sein Chef gibt **IHM** Urlaub.
- B5 A: Peter hat sich **GEWUNDERT**, weil Maria zu Besuch kam.  
B: Nein, er hat sich **GEFREUT**, weil Maria hat Geschenke mitgebracht.
- B6 A: Peter hat angenommen, dass Franz ihm das Radio **SCHENKT**.  
B: Nein, er hat angenommen, er **VERKAUFT** ihm das Radio günstiger.
- C1 A: Peter hat dem Kunden etwas gezeigt.  
B: Ja, dem Kunden sich selbst im Spiegel.
- C2 A: Peter hat den Mann nach etwas gefragt.  
B: Ja, wen wer in dieser Affäre betrügt.
- C3 A: Peter hat seinen Nachbar zu dem Unfall befragt.  
B: Ja, wem wer aufgefahren ist.
- C4 A: Peter hat gedacht, dass der **POLITIKER** bestochen wurde.  
B: Nein, in **ROTTENBURG** hat Paul gedacht, hat der Händler den Politiker bestochen.
- C5 A: Peter hat erzählt, dass Franz einen **UNFALL** hatte.  
B: Nein, auf einer **KREUZUNG** hat Paul erzählt, hatte Franz einen Unfall.
- C6 A: Peter hat gehört, dass der Lehrer **WÄHREND** seinem Urlaub gekündigt hat.  
B: Nein, **VOR** dem Urlaub hat Peter gehört, hat der Lehrer gekündigt.
- D1 A: Peter hat ihn als kompetenten Begleiter empfohlen.  
B: Ja, sich selbst.
- D2 A: Peter hat Maria einen Brief geschrieben.  
B: Ja, einander.
- D3 A: **PETER** hat es dem neuen Tenor zugemutet.  
B: Nein, der **KOMPONIST** hat dem neuen Tenor es zugemutet.
- D4 A: Peter hat seinen Sohn eine **GESCHICHTE** vorgelesen.  
B: Nein, Peter hat ein **GEDICHT** ihm vorgelesen.
- D5 A: Peter hat Maria eine **E-MAIL** geschickt.  
B: Nein, er hat eine **SMS** ihr geschickt.
- D6 A: Peter hat am liebsten die **FAZ** gelesen.  
B: Nein, er liest am liebsten die **SÜDDEUTSCHE**, obwohl er lebt jetzt in Düsseldorf.
- E1 A: Peter hat den Rasen gemäht.  
B: Ja, obwohl der Hitze.
- E2 A: Peter hat den Fernseher eingeschaltet.  
B: Ja, um zu sehen eine Fernsehserie.
- E3 A: Peter hat seinem Sohn ein Geschenk gemacht  
B: Ja, ein Fahrrad in die Schule zum Fahren.

- E4    A: Peter hat mit Freunden **UNO** gespielt.  
      B: Nein, beim Stammtisch die Freunde haben mit Vorliebe  
          **SKAT** gespielt.
- E5    A: Peter hat Franz mit einem Geschenk überrascht.  
      B: Nein, da gerechnet mit hat der Franz natürlich nicht.

#### Declaration of Authorship

I hereby confirm that this paper and the work presented in it is entirely my own. Where I have consulted the work of others this is always clearly stated. All statements taken literally from other writings or referred to by analogy are marked and the source is always given. This paper has not yet been submitted to another examination office, either in the same or similar form.

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