

Alternations of object-experiencer predicates

Studies on detransitivization and light verb
constructions in the psych domain

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Abstract

This dissertation investigates the constructional variation of object-experiencer psych predicates in Germanic and Romance languages, with a focus on German. The construction types in focus are synthetic object-experiencer verbs, such as German *ärgern* ('to annoy') and *freuen* ('to gladden'), their reflexive-marked detransitivized constructions such as *sich ärgern* ('to be annoyed') and *sich freuen* ('to be happy'), and light verb constructions encompassing an emotion noun, such as *in Ärger versetzen* ('to make angry', lit. 'to transfer into anger') and *Freude machen* ('to make happy', lit. 'to make joy'). Six research papers compose the main body of the dissertation, grouped into three pairs.

The first pair of research papers studies the properties of the detransitivized construction in the psych alternation. [Wiskandt \(2021a\)](#) conducts a study on a sample of German object-experiencer verbs with respect to their ability to form a reflexive-marked detransitivized construction, which the paper hypothesizes has the role of an anticausative. It identifies several lexical restrictions that block the ability to detransitivize. [Wiskandt \(2026\)](#) tackles the question of the grammatical nature of psych detransitivization in Germanic and Romance languages by taking a typological perspective. Based on a sample of languages from different families, the paper shows that psych detransitivization regularly syncretizes with anticausative voice functions.

The second pair of research papers studies patterns of object-experiencer light verb constructions. [Wiskandt & Turus \(2023\)](#) study the compatibility of three common patterns of object-experiencer light verb constructions with a sample of emotion nouns in German. [Wiskandt \(2025\)](#) takes a cross-linguistic perspective on two further patterns of object-experiencer light verb constructions. Based on three Germanic and three Romance languages, it shows cross-linguistic regularities with respect to compatibility of emotion nouns with light verb construction patterns, but also demonstrates that differences are between individual languages rather than between families.

The third pair of research papers studies the relation between the constructions of the psych alternation and lexically corresponding object-experiencer light verb constructions. Both papers work with German data. [Wiskandt & Turus \(2025\)](#) investigate the properties of the most productive pattern of German object-experiencer light verb constructions described in [Wiskandt & Turus \(2023\)](#), and their relation to lexically corresponding synthetic object-experiencer verbs. In a quantitative corpus study, the paper demonstrates how semantic properties of the arguments predict the choice between verbs and light verb constructions. Based on the corpus study and on a set of semantic tests, it argues for an analysis of the LVC pattern as causative marking. [Wiskandt \(submitted\)](#) proposes to analyze the interaction between transitive object-experiencer verbs, their detransitivized constructions, and corresponding object-experiencer light verb constructions as a complex diathesis alternation. In this alternation, the function of the detransitivized construction is that of an anticausative voice, which takes up a hypothesis of [Wiskandt \(2021a\)](#) relates to the findings of [Wiskandt \(2026\)](#). The function of the light verb construction patterns is that of a causative voice, which relates to the findings of [Wiskandt & Turus \(2025\)](#).

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For a significant part of my time as a PhD student, I worked together with Dila Turus. We shared an office, we co-authored presentations and publications, and usually shared new research ideas with each other first. The research line on German object-experiencer light verb constructions, which now accounts for a significant part of this dissertation, originated as a spontaneous idea for a side project between Dila and me. She was working on German light verb constructions, I was working on object-experiencer verbs – it just made sense, and working together with a friend is always a plus.

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¹He’s a dog, he doesn’t need a last name.

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During my time as a PhD student, I have learned in more than one way that a safe and friendly working environment can make a huge difference. My home Department of Linguistics has proven to be a safety net on bad days and simply a nice place to be on all other days. Spending time with my colleagues, and particularly my fellow PhD students in general and computational linguistics, did not feel like a job (although a salary is still a nice thing to have, sure) and made almost everything feel manageable. The remaining unmanageable matters were, of course, easily managed by our heroes in the secretaries' office of the Departments of Linguistics, in the PhD office of the Faculty of Arts and Humanities, and at philGRAD.

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Glossary

1	first person	GEN	genitive	PFV	perfective
2	second person	HON	honorific	PL	plural
3	third person	IND	indicative	POSS	possessive
ACC	accusative	INDF	indefinite	PRN	proper name
ACT	active voice	INF	infinitive	PRS	present
AUX	auxiliary	IO	indirect object	PST	past
CAUS	causative	IPFV	imperfective	PTCP	participle
DAT	dative	M	masculine	REFL	reflexive
DEF	definite	MID	middle voice	REL	relative
DEM	demonstrative	N	neuter	SBJ	subject
DO	direct object	NEG	negative	SBJV	subjunctive
F	feminine	OBJ	object	SG	singular
FUT	future	PASS	passive		

Part I

Fundamentals

Chapter 1

Introduction

There is always more than one way to express an emotion. In German, we find nouns like *Angst* ('fear'), *Freude* ('joy'), and *Ekel* ('disgust'), verbs like *freuen* ('to gladden'), *mögen* ('to like'), and *verwirren* ('to confuse'), and adjectives like *froh* ('happy'), and *zufrieden* ('satisfied, content'). Emotion nouns, verbs and adjectives can often be derived from each other: For instance, the noun *Begeisterung* ('enthusiasm') is derived from the verb *begeistern* ('to enthuse'), the verb *ärgern* ('to anger, annoy') is derived from the noun *Ärger* ('anger'), and the adjective *genervt* ('annoyed') is derived from the verb *nerven* ('to annoy'), as a participle. These different types of lexical elements are used to form various types of predicates that speakers can use to describe emotional states and events. Consider the examples, constructed for illustration, in (1):

- (1) a. *Ich mag Gefühlsprädikate wirklich.*
1SG like.1SG emotion predicate.PL really
'I really like emotion predicates.'
- b. *Aber manchmal verwirr-en sie mich auch sehr.*
but sometimes confuse-3PL 3PL 1SG.ACC also very
'But sometimes they also confuse me very much.'
- c. *Trotzdem bin ich mit meinen Ergebnissen zufrieden.*
nonetheless be.1SG 1SG with 1SG.POSS result.PL satisfied
'I am satisfied with my results nonetheless.'
- d. *Euch von Gefühlsprädikaten zu erzählen, bring-t mich jedes Mal in Begeisterung.*
2PL.OBJ of emotion predicate.PL to tell.INF bring-3SG 1SG.ACC every time into enthusiasm
'Telling you about emotion predicates gets me enthusiastic every time.'
- e. *Dass ich mich kurz fassen muss, geh-t mir ziemlich auf die Nerven.*
that 1SG REFL.1SG keep short.INF must.1SG go-3SG 1SG.Dat quite on DEF nerve.PL
'I find it quite annoying that I have to keep it short.'

(German < Germanic < Indo-European, [stan1295](#))

All five sentences in (1) are examples of emotion predicates. In each of the sentences, two arguments are expressed with the predicate: First, there is always an argument that refers to an individual who experiences the emotion that the predicate denotes. We will call this type of argument an 'experiencer' argument. Second, all sentences also express a second argument, which refers to an object or event that the emotion relates to. For the time being, I will call this type of argument a 'non-experiencer argument'. The way in which these two arguments are expressed depends on the

type of the predicate.

In (1a), the emotion is denoted by a verb, the experiencer argument is the subject, expressed by a 1SG subject pronoun, and the non-experiencer argument *Gefühlsprädikate* is an object. In (1b), the emotion is also denoted by a verb, but the expression of the arguments is the other way round: Here, the non-experiencer argument is the subject, and the experiencer argument is an object. The predicate in (1c) is formed by an emotion adjective combined with a copula. While the experiencer argument is expressed as the subject again, the non-experiencer argument is not expressed as an object, but in a prepositional phrase. Another form of complex predicate is shown in (1d). An emotion noun, a preposition and a special use of the verb *bringen* (‘to bring’) form what I will later define as a ‘light verb construction’. Non-experiencer and experiencer arguments are expressed as subject and object respectively, just as in (1b). The non-experiencer argument appears here in the form of an infinitive clause describing an event. The expression of both arguments is similar in (1e), with a subject sentence as non-experiencer argument and an object pronoun as experiencer argument. The emotion denoted by the predicate in this last example, however, is not directly contributed by an emotion verb, adjective, or noun. The expression *auf die Nerven gehen* ‘to annoy’ is a collocation, which exists in English in a similar form, as *to get on someone’s nerves*.

Out of the five types exemplified in (1), this dissertation takes a closer look at those that express the experiencer argument as an object in their unmarked active voice form. I call such predicates ‘object-experiencer predicates’. Furthermore, I restrict myself to studying those types of predicates that are attested with the same structure for different emotions. This excludes idioms like (1e), leaving us with the types of predicates illustrated in (1b) and (1d). Both types of predicates, verbs as well as light verb constructions with object experiencers, exhibit systematic variation of constructions, i.e., the same construction patterns are available for many different emotion verbs and nouns, respectively.

Such systematic variation is found in the so-called ‘psych alternation’ of object-experiencer verbs, exemplified in (2). The active voice construction in (2a), which expresses the non-experiencer argument as subject and the experiencer argument as object, alternates with detransitivized constructions marked by a reflexive pronoun, in which the experiencer argument is expressed as subject instead. The non-experiencer argument can be expressed in a prepositional phrase (2b), or omitted entirely (2c). Such an alternation is attested for many object-experiencer verbs in German, other Germanic and Romance languages, and beyond.

- (2) a. *Der Lärm draußen ärger-t die Professorin sehr.*
 DEF noise outside anger-3SG DEF professor(F) very
 ‘The noise outside makes the professor very angry.’
 b. *Die Professorin ärger-t sich sehr über den Lärm draußen.*
 DEF professor(F) anger-3SG REFL very about DEF noise outside
 ‘The professor is very angry about the noise outside.’
 c. *Die Professorin ärger-t sich sehr.*
 DEF professor(F) anger-3SG REFL very
 ‘The professor is very angry.’ (German)

Object-experiencer light verb constructions show systematic variation, too. There are several patterns, with different verbs and prepositions, but apparently very similar meanings. For example, the predicates in (3a) and (3b) are each closely related to (1d).

- (3) a. *Der Dozent versetz-te die Studierenden mit Witzen in Begeisterung.*
 DEF lecturer transfer-PST DEF student.PL with joke.PL into enthusiasm
 ‘The lecturer’s jokes got the students enthusiastic.’

-
- b. *Die Ankündigung des Dozenten am Ende der Sitzung brachte die*
 DEF announcement DEF.GEN lecturer at.DEF end DEF session bring.PST DEF
Teilnehmenden schließlich zur Begeisterung.
 participant.PL finally to.DEF enthusiasm
 ‘The lecturer’s announcement at the end of the session finally got the participants
 enthusiastic.’ (German)

The psych alternation (2) and light verb construction patterns (3) are both lexically restricted: The psych alternation does not work with all object-experiencer verbs (4), and light verb construction patterns do not work with all emotion nouns (5). While the object-experiencer verb *ekeln* (‘to disgust’) shown in (4a) can form a psych alternation pair with (4b), no similar reflexive-marked detransitivized construction is available for the verb *frustrieren* (‘to frustrate’) in (4c). The constructed example in (4d) is infelicitous.

- (4) a. *Der versalzene Eintopf letzte Woche ha-t uns echt ge-ekel-t.*
 DEF ofersalted stew last week have-3SG 1PL.OBJ really PTCP-disgust-PTCP
 ‘The oversalted stew last week really disgusted us.’
- b. *Vor dem versalzenen Eintopf hab-en wir uns letzte Woche echt ge-ekel-t.*
 from DEF ofersalted stew have-1PL 1PL REFL.1PL last week really
 PTCP-disgust-PTCP
 ‘We were really disgusted by the oversalted stew last week.’
- c. *Die Schließung der Cafeteria frustrier-t die Mitarbeiter sehr.*
 DEF closing DEF.GEN cafeteria frustrate-3SG DEF staff.PL very
 ‘The closing of the cafeteria frustrates the staff a lot.’
- d. **Die Mitarbeiter frustrier-en sich sehr über die Schließung der Cafeteria.*
 DEF staff.PL frustrate-3PL REFL very about DEF closing DEF.GEN cafeteria
 intended: ‘The stuff is very frustrated about the closing of the cafeteria.’ (German)

Similar to the psych alternation, the formation of object-experiencer light verb constructions is also lexically restricted. The pattern with the verb *bringen* (‘bring’) and the preposition *zu* (‘to’) works perfectly with the emotion noun *Erstaunen* (‘astonishment’) (5a), but not with the noun *Angst* (‘fear’) in (5b). Conversely, the noun *Angst* is compatible with the pattern encompassing the verb *machen* (‘make’) in (5c), but the noun *Erstaunen* is not (5d).

- (5) a. *Die Fragen in der Verteidigung werd-en mich vielleicht zum Erstaunen bring-en.*
 DEF question.PL in DEF defense will-3PL 1SG.ACC maybe to.DEF
 astonishment bring-INF
 ‘Maybe the questions in the defense will astonish me.’
- b. **Die Fragen in der Verteidigung werd-en mich vielleicht zur Angst bring-en.*
 DEF question.PL in DEF defense will-3PL 1SG.ACC maybe to.DEF fear
 bring-INF
 intended: ‘Maybe the questions in the defense will frighten me.’
- c. *Die Fragen in der Verteidigung werd-en mir vielleicht Angst mach-en.*
 DEF question.PL in DEF defense will-3PL 1SG.DAT maybe fear make-INF
 ‘Maybe the questions in the defense will frighten me.’
- d. **Die Fragen in der Verteidigung werd-en mir vielleicht Erstaunen mach-en.*
 DEF question.PL in DEF defense will-3PL 1SG.DAT maybe astonishment
 make-INF
 intended: ‘Maybe the questions in the defense will astonish me.’ (German)

Those two phenomena, the psych alternation of object-experiencer verbs and object-experiencer light verb constructions, seem to be separate issues. Previous literature has, at least, treated them as such. But they are not. The two phenomena are very much related, because the different types of constructions are in constant and systematic competition with each other. German features many pairs of emotion verbs and nouns, linked by derivation, that have the same lexical root. Examples of such pairs are *freuen* ('to gladden') and *Freude* ('joy'), *ängstigen* ('to frighten') and *Angst* ('fear'), or *interessieren* ('to interest') and *Interesse* ('interest'). Some of the nouns in those pairs can be used in object-experiencer light verb constructions. This creates pairs of lexically corresponding object-experiencer verbs and light verb constructions like (6). The predicates in (6a) and (6b), can be used to refer to the same situation, with the same arguments. They share the same lexical root which contributes the denoted emotion, encompassed in the verb in (6a) and in the emotion noun in (6b).

- (6) a. *Beispiele aus anderen Sprachen freu-en mich immer.*
 examples from other languages gladden-3PL 1SG.ACC always
 'Examples from other languages always make me happy.'
- b. *Beispiele aus anderen Sprachen mach-en mir immer Freude.*
 examples from other languages make-3PL 1SG.DAT always joy
 'Examples from other languages always make me happy.' (German)

Besides the two constructions in (6a) and (6b), the psych alternation and more patterns of light verb constructions provide further options to describe the same scenario. Thus, a speaker can choose among a number of constructions with the same lexical root to describe the respective emotion scenario, the experiencer, and the non-experiencer argument. It needs to be investigated which factors lead the speaker to choose a particular construction in a given case. It also remains an open question what the semantic differences between the construction are, and how that influences their use.

A similar competition between construction patterns can be observed in other Germanic and Romance languages, but there are differences between the exact inventories of construction patterns. Danish, for instance, has object-experiencer verbs analogous to those in German, as in (7a). But two different markers can be used to form the detransitivized construction in the psych alternation: a reflexive pronoun just like in German (7b), or a middle voice suffix (7c). Danish also has a different inventory of patterns to form object-experiencer light verb constructions. (7d) shows an example of such a construction formed by the verb *give* ('to give') and an emotion noun denoting the emotion of 'annoyance', which could not be constructed analogously in German.

- (7) a. *Det ærgre-r mig selvfølgelig meget nu.*
 that annoy-PRS 1SG.OBJ of course a lot now
 'Of course, that annoys me a lot now.'
- b. *Christian [...] ærgre-r sig over beskyldningerne.*
 PRN annoy-PRS REFL about accusation.PL.DEF
 'Christian is annoyed about the accusations.'
- c. *Jeg ærgre-s ofte over den ligegyldighed.*
 1SG annoy-MID often about that indifference
 'I am often annoyed by that indifference.'
- d. *For kunden vil it-problemer ofte [...] give ærgrelse.*
 for customer.DEF will IT problem.PL often give annoyance
 'For the customer, IT problems will often be annoying.'

(Danish < Germanic < Indo-European, [dani1285](#);

[daTenTen20](#) 7877248, 82606449, 18435667, 3437040555)

For object-experiencer verbs in Brazilian Portuguese, like *aborrecer* (‘to annoy’) in (8a), the marking of the detransitivized construction in the psych alternation (8b) by a reflexive pronominal element is similar to that in German. But regarding patterns used to form object-experiencer light verb constructions, like the one in (8c), it is more similar to Danish.

- (8) a. *O rigor da mãe aborrec-eu o filho.*
 DEF strictness of:DEF mother annoy-PST.PFV.3SG DEF son
 ‘The mother’s strictness annoyed her son.’
 b. *O filho se aborrec-eu com o rigor da mãe.*
 DEF son REFL annoy-PST.PFV.3SG with DEF strictness of:DEF mother
 ‘The son got annoyed by his mother’s strictness.’
 c. *O rigor dela só lhe da-va aborrecimento.*
 DEF strictness 3SG.F.POSS only 3SG.DAT give-PST.IPFV annoyance
 ‘Her strictness just annoyed him.’

(Brazilian Portuguese < Romance < Indo-European, [braz1246](#))

In this dissertation, I focus on alternations involving object-experiencer predicates, how the functions of different alternations can be characterized, and how these functions complement each other. I address the phenomena and problems illustrated in examples (2)–(6) and show how they are connected to each other, thereby building a bridge between research topics previously presumed separate. A set of four central questions guide the research in this dissertation:

- RQ 1** What is the grammatical function of the detransitivized construction in the psych alternation?
- RQ 2** What is the grammatical function of object-experiencer light verb constructions?
- RQ 3** Which lexical restrictions operate on the psych alternation and on object-experiencer light verb constructions?
- RQ 4** How can the relation between object-experiencer verbs and lexically corresponding light verb constructions be characterized?

In order to provide answers to these questions, I present six separate studies and connect their results. The introductory Part I continues with a concise overview of the research background on object-experiencer verbs, complex predicates and their grammatical alternations in Chapter 2. The research questions presented above are further elaborated on in Chapter 3, followed by an introduction to the six research papers included in Part II.

The papers are organized in three pairs, one for each for the two phenomena this dissertation focuses on, and another one on the relation between the two. The first pair of papers studies the properties of the detransitivized construction in the psych alternation. Chapter 4 ([Wiskandt, 2021a](#)) investigates German object-experiencer verbs with respect to their ability to form the detransitivized construction. Chapter 5 ([Wiskandt, 2026](#)) takes a cross-linguistic perspective on the grammatical nature of the detransitivized construction and its relation to other detransitivizing voice functions. The second pair of papers studies patterns of object-experiencer light verb constructions. Chapter 6 ([Wiskandt & Turus, 2023](#)) is concerned with the compatibility of three common patterns of object-experiencer light verb constructions with a sample of emotion nouns in German. A cross-linguistic study is presented again in Chapter 7 ([Wiskandt, 2025](#)), which examines regularities across Germanic and Romance languages with respect to compatibility of emotion nouns with light verb construction patterns. The third pair of papers is on the relation between object-experiencer verbs and lexically corresponding light verb constructions. Both studies work

with German data. Chapter 8 (Wiskandt & Turus, 2025) investigates the usage differences between object-experiencer light verb constructions of the most frequent pattern (*in N versetzen*, as in example (3a) above) and corresponding synthetic verbs in a corpus study, and discusses properties of the construction pattern that explain those differences. The relation between object-experiencer verbs and light verb constructions is further analyzed in Chapter 9 (Wiskandt, submitted). This last study builds on the results of the five previous chapters and proposes a new analysis of the constructional variation of object-experiencer predicates as a complex diathesis alternation.

The concluding Part III complements and summarizes the results. Four smaller corpus studies of supplementary character are taken into account in Chapter 10. Chapter 11 checks the results of all chapters against the initial research questions, formulates open questions, and provides an outlook on possible subsequent studies based on the results of this dissertation. Finally, Chapter 12 summarizes the main findings of the dissertation and their impact on future research in the fields of psych predicates and grammatical alternations.

Chapter 2

Background

This chapter summarizes previous research on object-experiencer predicates that the studies presented in this dissertation build on, with a focus on syntactic alternations. It does not intend to comprehensively cover all aspects of previous studies on psych predicates. While each chapter of Part II comes with its own background section that reviews the literature that is necessary for the respective paper, the purpose of this chapter is to provide a common background for the research papers, and to motivate the research questions presented in Chapter 3. Those aspects of psych predicates that are beyond the scope of this dissertation are, correspondingly, also not discussed in this chapter. Section 2.1 introduces object-experiencer verbs, Section 2.2 turns to complex object-experiencer predicates, and Section 2.3 treats three types of alternations in which object-experiencer predicates participate.

2.1 Object-experiencer verbs

Object-experiencer verbs like English *worry*, *please*, German *beunruhigen* (‘worry’), *gefallen* (‘please’), and Spanish *preocupar* (‘worry’), *gustar* (‘please’), are widely recognized as a crucial problem field for the description and modeling of the syntax-semantics interface, at latest since the seminal work of Belletti & Rizzi (1988). Before we can discuss the properties of these verbs, it is necessary to establish the definition of experiencer predicates that this dissertation uses.

(1) EXPERIENCER PREDICATE

An experiencer predicate is any predicate that takes an experiencer as one of its arguments. If that predicate has the morphosyntactic form of a synthetic verb, it is an ‘experiencer verb’.

Synonyms of the term ‘experiencer verb’ in the literature are ‘psych verb’ and ‘emotion verb’. Experiencer verbs in Germanic and Romance languages usually have two arguments: the experiencer and a second argument which the experience of the experiencer relates to. I will refer to this argument as the ‘non-experiencer argument’ as long as I do not discuss the specific semantic roles it can have.

The term ‘experiencer’ is not used consistently throughout the literature: Depending on the author and research topic, it can have a narrow or a wider sense. An ‘experiencer’ in the narrow sense is an argument whose referent experiences an emotion¹. When used in the wider sense, the

¹I will not engage in the debate in the field of psychology on what defines an emotion. For this work, I assume a trivial understanding of emotions as evaluative mental attitudes and reactions.

term ‘experiencer’ refers to an argument whose referent experiences any cognitive or psychological state or process, which can be either a perception, an act of cognition, or an emotion. [Van Valin \(2005\)](#) assumes three semantic roles as sub-categories of experiencers: ‘Perceivers’ are experiencer arguments of perception predicates (e.g. ‘see’, ‘hear’); ‘cognizers’ are experiencer arguments of cognition predicates (e.g. ‘think’, ‘know’); and ‘emoters’ are experiencer arguments of emotion verbs (e.g. ‘fear’, ‘love’). In this dissertation, the term ‘experiencer’ is used in the narrow sense, i.e. synonymous to the term ‘emoter’, due to the circumstance that it is the more widely accepted understanding of the term. Consequentially, an experiencer predicate in the sense of this dissertation is a predicate that has an argument which refers to an individual experiencing an emotion.

The terms ‘experiencer predicate’ and ‘experiencer verb’ do not specify the grammatical relation that the experiencer argument is expressed in. Within the class of experiencer verbs, subclasses can be established based on how the experiencer argument is expressed (cf. e.g. [Belletti & Rizzi, 1988](#)). The first distinction lies between subject-experiencer verbs and object-experiencer verbs. Subject-experiencer verbs express the experiencer argument as their subject, and can express the non-experiencer argument as their object, as in example (2a). Object-experiencer verbs express the non-experiencer argument as their subject and the experiencer argument as their object, as in example (2b).

- (2) a. *Ich mag weiße Schokolade sehr.*
 1SG like.1SG white chocolate very
 ‘I like white chocolate very much.’
 b. *Rosenkohl dagegen ekel-t mich.*
 brussels.sprouts(SG) however disgust-3SG 1SG.ACC
 ‘Brussels sprouts, however, disgust me.’ (German)

The class of object-experiencer verbs exhibits a further subdivision with respect to the type of object that as which the experiencer is expressed. The first subtype, also known as accusative-experiencer verbs, expresses the experiencer as a direct object. For example, the experiencer argument in (3a) bears accusative case, marking it as a direct object. The second type, also known as dative-experiencer verbs, expresses the experiencer as an indirect object. For example, the experiencer argument in (3b) bears dative case, marking it as an indirect object.

- (3) a. *Der Familienbesuch freut ihn.*
 DEF family.visit gladden-3SG 3SG.M.ACC
 ‘The family visit makes him happy.’
 b. *Das Bild gefällt ihm.*
 DEF picture please-3SG 3SG.M.DAT
 ‘The picture pleases him.’ / ‘He likes the picture.’ (German)

The type of experiencer verbs central to this dissertation is the direct object subtype of object-experiencer verbs as in (3a), which is the more frequent type in Germanic and Romance languages (cf. e.g. [Belletti & Rizzi, 1988](#) for Italian and the database in [Poppek et al., 2022](#) for German). It is far from obvious which exact role the subject of these object-experiencer verbs takes. In previous literature, it has been classified as a theme (e.g. [Belletti & Rizzi, 1988](#)), causer (e.g. [Pesetsky, 1995](#)), stimulus (e.g. [Verhoeven, 2010](#)), or correlate (e.g. [Kailuweit, 2005](#)). Each of the respective labels come with their own theoretical assumptions. The semantic role of this argument will be discussed later in this dissertation. Before that, and as a neutral generalization over all possible types of such arguments, I use the term ‘non-experiencer argument’.

Transitive subject-experiencer verbs such as *fear* or *hate* have usually been assumed to display an unmarked linking behavior, because they realize their more active, more agent-like argument

as the subject in the active voice (Belletti & Rizzi, 1988; Grimshaw, 1990; Dowty, 1991; Pesetsky, 1995; Temme, 2018). In contrast to that, realizing the experiencer as an object seems marked: An experiencer object is clearly not a canonical direct object like a patient or theme would be. Furthermore, object-experiencer verbs have been described to show peculiar grammatical properties across languages. Landau (2009: 75) gives an overview and describes the following properties: accusative-dative case marking alternations of the object; restrictions with respect to reflexive constructions, verbal passives, and periphrastic causative constructions; special binding properties; and restrictions on nominalization. Landau (2009) coined the term “psych properties” for these grammatical peculiarities. In this chapter, I only describe those particular properties of the verb class in more detail that are relevant for the studies presented in Part II.

Belletti & Rizzi (1988) assume that object-experiencer verbs show such psych properties because they are unaccusatives. Grimshaw (1990) and Pesetsky (1995), in turn, argue that the differences between subject-experiencer and object-experiencer verbs should not be explained by unaccusativity of object-experiencer verbs, but rather by causativity. Following Grimshaw (1990), transitive object-experiencer verbs are causative change-of-state verbs. Pesetsky (1995) attributes the semantic role of causer to the non-experiencer argument of transitive object-experiencer verbs, and since a causer is, in Dowty’s terms (1991), a more active argument than an experiencer, it is realized as the subject. Checked against the background of a more recent state of research (e.g. as summarized by Temme, 2018), it seems dubitable to treat the entire class of object-experiencer verbs as causative verbs. They do not denote prototypical causal relations (Kailuweit, 2005, 2015), in which the more agentive argument is the cause of an event affecting the less agentive argument, and the latter does not control whether or not the event takes place. Kutscher (2009) highlights that the causal relation between the participants denoted by both arguments of experiencer verbs could actually be conceptualized in both directions: By evaluating the entity or event that the emotion relates to, the experiencer can partially control the emotion. Object-experiencer verbs are not only ambiguous with respect to causality, but also with respect to aktionsart. Bouchard (1995) and Landau (2009) assume that psych properties appear only with stative readings of object-experiencer verbs, while they are absent with eventive, change-of-state readings of the same verbs. But cross-linguistic data are inconclusive with respect to this assumption (cf. Temme, 2018).

Beyond aktionsart, recent studies on object-experiencer verbs have focused on their morphosyntactic alternations. An accusative/dative case alternation of the experiencer object was already included in Landau (2009)’s list of psych properties, and in recent years, voice alternations of object-experiencer verbs have gained considerable attention. Section 2.3 will be dedicated to introducing three dimensions of morphosyntactic alternations of object-experiencer predicates.

2.2 Complex object-experiencer predicates

Besides object-experiencer verbs as they were characterized in the previous section, we find several types of complex object-experiencer predicates in German and in other Germanic and Romance languages. For example, German adjectives denoting emotional states can be combined with the verb *machen* (‘make’) as in (4a), producing object-experiencer predicates with caused-state meanings. Furthermore, we find metaphorical expressions like (4b), and idiomatic expressions with experiencer objects that do not follow any recurring patterns, such as (4c).

- (4) a. *Die Nachrichten mach-en mich wirklich sauer.*
 DEF news make-3PL 1SG.ACC really angry
 ‘The news me really angry.’

- b. *Manche Berichte könn-en mir Angst einflöß-en.*
 some report.PL can-3PL 1SG.DAT fear instill-INF
 ‘Some reports can frighten me.’ / lit. ‘Some reports can instill fear into me.’
- c. *Herumrennende Enkel können einem während der Nachrichten ganz schön auf den Wecker geh-en.*
 run.around.PTCP grandchild(PL) can.3PL INDF.DAT during DEF news
 somewhat on DEF alarm.clock go-INF
 ‘Grandchildren running around can be somewhat annoying during the news.’ / lit.
 ‘Grandchildren running around can somewhat step on one’s alarm clock during the news.’ (German)

The particular type of complex object-experiencer predicates that I investigate here is constituted by object-experiencer light verb constructions (LVCs). Similar to the inconsistent use of the terms ‘experiencer’ and ‘experiencer verb’, addressed in the previous section, the literature is inconsistent regarding the use of the terms ‘light verb’ and ‘LVC’ (see e.g. Van Pottelberge, 2001; Winhart, 2005; Glatz, 2006; Harm, 2021; Cysouw, 2023). I assume the following definition (5) of LVCs in general (in the line of Fleischhauer & Turus, 2021, 2022; Fleischhauer & Hartmann, 2023):

(5) LIGHT VERB CONSTRUCTION

A light verb construction (LVC) consists of a light verb and a non-verbal phrasal element which, together, form a single complex predicate. The non-verbal phrasal element can be a nominal phrase or a prepositional phrase, and it contributes the main semantics about the event denoted by the predicate (see e.g. Helbig, 1984: 165, von Polenz, 1987: 175). The light verb is a semantically lightened version of a verb which also has a distinguishable heavy use, e.g. a verb of transfer (‘give’, ‘bring’) or production (‘make’). It is characteristic of light verb uses that the event denoted by a LVC is not a subtype of the event denoted by the corresponding heavy verb.

Consider example pair (6): The event denoted by the LVC *einen Kuss geben* (‘to give a kiss’), as in example (6b) is not an actual event of giving, in which an object would undergo an intentionally caused change of possession, as it does in the heavy verb use of *geben* (‘to give’) in (6a).

- (6) a. *Die Oma gib-t ihren Enkeln Milch und Kekse.*
 DEF grandma give-3SG 3SG.F.POSS grandchildren milk and cookies
 ‘The grandma gives her grandchildren milk and cookies.’
- b. *Die Oma gib-t ihren Enkeln einen Kuss.*
 DEF grandma give-3SG 3SG.F.POSS grandchildren INDF kiss
 ‘The grandma gives her grandchildren a kiss / kisses her grandchildren.’ (German)

Building on definition (5), I assume the following definition (7) of object-experiencer LVCs in particular (as put forward in Wiskandt & Turus, 2025: 198; Wiskandt, 2025: 100; and Wiskandt, submitted: 5–6):

(7) OBJECT-EXPERIENCER LIGHT VERB CONSTRUCTION

An object-experiencer LVC is a LVC under definition (5) that has two arguments, of which one, realized as an object, can be attributed the semantic role of an experiencer. Whether the experiencer appears as a direct object (DO) or as an indirect object (IO) depends on the type of the non-verbal element: If the non-verbal element is a NP, it takes the syntactic role of direct object, so the experiencer is realized as an indirect object with dative case marking. If the non-verbal element is a PP, the role of direct object with accusative case marking is free for the experiencer.

Consider example pair (8): The non-verbal element in (8a) is a NP, and it takes the syntactic role of direct object, so the experiencer is realized as a dative-marked pronoun. The non-verbal element in (8b) is a PP, so the experiencer is realized as an accusative-marked pronoun.

- (8) a. *Lesen mach-t ihm Freude.*
 reading make-3SG 3SG.M.DAT joy
 ‘Reading makes him happy.’
 b. *Das Erscheinen des neuen Buches versetz-t ihn in Freude.*
 DEF publication DEF.GEN new book.GEN transfer-3SG 3SG.M.ACC into joy
 ‘The publication of the new book makes him very happy.’ (German)

The acceptance of an overt experiencer object is a necessary condition for the classification as an object-experiencer LVC in the sense of this dissertation. An LVC with a stimulus subject and an emotion meaning but without an experiencer object does not qualify: For example, *für Angst sorgen* (‘spread fear’, lit. ‘take care of fear’), is not an object-experiencer LVC. The non-verbal element of object-experiencer LVCs investigated in this dissertation, which can be either a NP or a PP, encompasses a noun that denotes an emotional state or event. I refer to these nouns as ‘emotion nouns’. The emotion noun is the semantic core of the predication in an object-experiencer LVC, as it specifies the type of emotion. The noun can have other semantic components, but an emotion must be entailed for it to be an emotion noun in the sense of this dissertation, and consequentially, for the construction to be classified as an object-experiencer LVC. In (9) I list five productive patterns used to form object-experiencer LVCs in German, which will be studied in the later chapters. In each of these patterns, *N* is the placeholder for an emotion noun, such as *Ärger* (‘anger’), *Langeweile* (‘boredom’), or *Freude* (‘joy’). The abbreviation IO or DO specifies whether the experiencer argument is a direct object or an indirect object.

- (9) a. *N machen* (‘make N’) + IO
 b. *N geben* (‘give N’) + IO
 c. *in N versetzen* (‘transfer into N’) + DO
 d. *in N bringen* (‘bring into N’) + DO
 e. *zu N bringen* (‘bring to N’) + DO

In the following chapters, I will refer to these patterns in the way they are listed in (9): When talking specifically about the German patterns, I will refer to them as *N machen*, *N geben*, *in N versetzen*, *in N bringen*, and *zu N bringen*. By contrast, when I refer to the patterns from a cross-linguistic perspective, I will refer to them as ‘make N’, ‘give N’, ‘transfer into N’, ‘bring into N’, and ‘bring to N’. Examples for the five productive patterns are provided in (10), each under the letter corresponding to that in (9).

- (10) a. *Das Brettspiel mach-t allen Spaß.*
 DEM board.game make-3SG all fun
 ‘The board game is fun for everyone.’
 b. *Das Beisammensein gib-t uns Mut für die Zukunft.*
 DEF being.together give-3SG 1PL.OBJ courage for DEF future.
 ‘Spending time together gives us courage for the future.’
 c. *Die Geschichte versetz-te die ganze Familie wieder in Heiterkeit.*
 DEF story transfer-PST DEF entire family again into cheerfulness
 ‘The story made the entire family cheerful again.’
 d. *Das Feuerwerk wird viele Tiere in Panik bring-en.*
 DEF fireworks(SG) will.3SG many animal.PL into panic bring-INF
 ‘The fireworks will cause many animals to panic.’

- e. *Die Bauanleitung bring-t die Eltern zur Verzweiflung.*
 DEF construction.manual bring-3SG DEF parents to.DEF despair
 ‘The construction manual is driving the parents to despair.’ (German)

The patterns (9c), (9d) and (9e) were first described by Winhart (2005: 161–165). The patterns (9a) and (9b) were not studied in previous literature on German, but equivalent constructions were investigated in Romance languages. For example, Staudinger (2018) analyzes ‘make N’ and ‘give N’ patterns of object-experiencer LVCs in Spanish (stan1288) and French (stan1290), Chishman & Abreu (2014) study them in Brazilian Portuguese (braz1246), and Viñas-de Puig (2014) in Spanish and Catalan (stan1289). According to Acedo-Matellán & Pineda (2019), Basque (isolate, basq1248) shares the ‘make N’ and ‘give N’ patterns with Romance languages.

There is a wide-spread assumption in the literature (cf. von Polenz, 1963; Ágel, 2017; Pompei & Piunno, 2023) that the primary semantic function of LVCs – in general, not particularly in the psych domain – in German as well as in Romance languages is to express aspectuality or aktionsart. They can contribute, for instance, inchoation, progressivity, or telicity. Compared to synthetic verbs, LVCs can have additional semantic value with respect to aktionsart, as von Polenz (1963: 13) concluded from a small comparative sample of verbs and LVCs. But Heringer (1968: 95) and Van Pottelberge (2001: 247) argue that such a difference is not always present. For several transitive light verbs, a causative function has been proposed (cf. von Polenz, 1987; Fleischer, 1997; Harm, 2021; Pompei & Piunno, 2023). This includes the light verbs used in object-experiencer LVCs like in the examples above, although the object-experiencer domain was not explicitly addressed. There is also a debate on whether LVCs and lexically corresponding verbs should be considered synonyms (e.g. in Glatz, 2006; von Polenz, 2008; Harm, 2021). Assuming that they are synonymous would conflict with central functional principles proposed in the literature, like the Principle of No Synonymy (Goldberg, 1995) or the recently adapted Principle of No Equivalence (Leclercq & Morin, 2023). Bonial & Pollard (2020) highlight functional differences between verbs and related LVCs that do not concern the semantics of the LVC patterns as such, but elements that can be added to them: For example, LVCs offer more options for modification: While they allow adverbial modification similar to synthetic verbs, they also allow attributive modification of the noun in the non-verbal element.

Whether these observations on LVCs in general can be confirmed for object-experiencer LVCs remains unknown. As a preparation for studies on this question later in this dissertation, the relation between object-experiencer verbs and LVCs will be introduced in Subsection 2.3.3.

2.3 Alternations of object-experiencer predicates

Object-experiencer predicates in Germanic and Romance languages exhibit three types of syntactic alternations: a voice alternation commonly called the ‘psych alternation’, a case alternation of the experiencer object, and a type of alternation newly established in this dissertation, which happens between object-experiencer predicates and lexically corresponding LVCs. The three alternation dimensions are introduced in the three respective subsections of this section.

2.3.1 The psych alternation

This subsection provides a research background on the psych alternation, starting with a general introduction to the phenomenon from a typological perspective before focusing on the instances of the psych alternation in German and other Germanic and Romance languages.

2.3.1.1 The psych alternation across languages

Across genetically and typologically diverse languages, experiencer verbs participate in a morphosyntactic alternation: Object-experiencer constructions alternate with subject-experiencer constructions of the same verb. The object-experiencer construction is syntactically transitive, while the subject-experiencer construction can be syntactically transitive or intransitive, depending on the language. It has been observed that the psych alternation has a close relation to phenomena subsumed under the term ‘causative alternation’. Alexiadou & Iordăchioaia (2014) first labeled the respective alternation in Greek and Romanian as the “psych causative alternation”; Creissels (2024: 713) notes the similarity of the psych alternation to unaccusative-transitive alternation pairs; and Rott et al. (2024: 148) mention an “overlap with the causative alternation”. There is no consensus, however, on whether the psych alternation is a subtype of the causative alternation or a distinct phenomenon. Rott et al. (2024) define three types of psych alternation strategies which produce three different types of alternation pairs: The augmented strategy derives object-experiencer constructions from subject-experiencer base constructions. The reduced strategy derives subject-experiencer constructions from object-experiencer base constructions (Rott et al., 2024: 151). The undirected strategy does not derive one of the two constructions from the other. It is defined instead by “equal formal complexity across both alternants” (Rott et al., 2024: 152). Creissels (2024: 711) defines the types of psych alternation strategies similarly. The augmented strategy is called transitivization strategy in Creissels’s terminology, while the reduced strategy is called detransitivization strategy. The undirected strategy of Rott et al. has two subtypes, flexivalency and equipollence. Furthermore, Creissels assumes a suppletivism strategy in the psych alternation, which is explicitly excluded by Rott et al. (2024).

Example set (11) shows an augmented, or, in the terminology of Creissels (2024), transitivizing psych alternation pair in Khoekhoegowab (Khoe, nama1264). The object-experiencer construction in (11b) is derived from the subject-experiencer construction in (11a) by means of the causative marker *kai*.

- (11) a. *Khoe-s ge (nē khoe-b /kha) nî //aixa.*
 person-F.SG.SBJ IND this person-M.SG with FUT be.angry
 ‘The woman will be angry (at this man).’
 b. *Nē khoe-b ge khoe-s-a nî //aixa kai.*
 this person-M.SG.SBJ IND person-F.SG-OBJ FUT be.angry CAUS
 ‘This man will make the woman angry.’
 (Khoekhoegowab/Nama < Khoe, nama1264; Rott et al., 2024: 152)

Example set (12) shows a reduced or detransitivizing psych alternation pair in Spanish. The subject-experiencer construction in (12b) is derived from the object-experiencer construction in (12a) by means of the reflexive pronominal clitic *se*. This reduced type dominates the psych alternation in German and the other Germanic and Romance languages, and is thus the most relevant type for this dissertation. It will be discussed in more detail in the following Subsection 2.3.1.2.

- (12) a. *El concierto alegr-a a Sofía.*
 DEF concert make.happy-3SG OBJ PRN
 ‘The concert makes Sofia happy.’
 b. *Sofía se alegr-a (con el /por el /del concierto).*
 PRN REFL make.happy-3SG with DEF for DEF of.DEF concert
 ‘Sofía gets happy (about the concert).’
 (Spanish < Romance < Indo-European, stan1288; Rott et al., 2024: 152)

Example set (13) shows an undirected psych alternation pair in Persian (Iranian < Indo-European, west2369). In the terminology of Creissels (2024), this pair constitutes an equipollent psych alternation. The subject-experiencer construction in (13a) and the object-experiencer construction in (13b) are distinguished not by a directed derivation between them, but in a change of the cliticized auxiliary.

- (13) a. *An mard (az kerm-ha) mariz shod.*
 DEF man with maggot-PL sickened get.PST
 ‘The man gets disgusted (by the maggots).’
 b. *Kerm-ha an mard ra mariz kard.*
 maggot-PL DEF man ACC sickened make.PST
 ‘The maggots disgust the man.’
 (Persian/Western Farsi < Iranian < Indo-European, west2369; cf. Rott et al., 2024: 167)

Most languages have a clear preference regarding the type of psych alternation pairs. Rott et al. (2024) adapt the typological parameter of valence orientation introduced by Nichols et al. (2004) for a typological classification of languages based on their preferred strategy in the psych alternation. Within Rott et al.’s classification, a language with a clear preference for augmented psych alternation pairs is transitivity in the psych domain. A language with a clear preference for reduced psych alternation pairs is detransitivizing in the psych domain; this is the case for Germanic and Romance languages (see Subsection 2.3.1.2). A language with a preference for undirected pairs, or no preference, is underspecified with respect to this typological parameter.

Rott et al. (2020) show that the type of psych alternation of a language is correlated with the occurrence of other ‘psych properties’ (cf. Section 2.1): These syntactic peculiarities of experiencer verbs tend to occur only when the respective language is detransitivizing in the psych domain, i.e. when the language has object-experiencer base verbs. This is the case in Germanic and Romance languages, which means that the occurrence of psych properties in these languages is typologically expected. Furthermore, the directionality of the psych alternation is correlated with the type of alignment system: Undirected psych alternation pairs are significantly more frequent and reduced pairs are significantly less frequent in languages with properties of an ergative alignment system (Rott et al., 2024: 173–174).

2.3.1.2 The detransitivizing psych alternation in Germanic and Romance

The psych alternation in Romance and Germanic languages belongs to the detransitivizing type (cf. Rott et al., 2024), since the vast majority of psych alternation pairs in the languages show the reduced (Rott et al., 2024) or detransitivizing (Creissels, 2024) strategy. In most cases, the marker of the detransitivized subject-experiencer construction is a reflexive pronoun or reflexive clitic. In Scandinavian languages, middle voice suffixes are a second, or in the case of Icelandic the only option. The base construction, which is the active voice construction of an object-experiencer verb, is transitive. As the derived subject-experiencer construction is intransitive, the non-experiencer argument does not have to be expressed in it, but it can optionally be realized in a prepositional phrase. (14) and (15) show psych alternation pairs from German and from Brazilian Portuguese (Romance < Indo-European, braz1246). (14a) and (15a) show the transitive base constructions, whereas (14b) and (15b) show the derived detransitivized constructions.

- (14) a. *Schlechte Noten ärger-n die Studierenden.*
 bad grade.PL irritate-3PL DEF student.PL
 ‘Bad grades irritate the students.’

- b. *Die Studierenden ärgern-n sich über schlechte Noten.*
 DEF student.PL irritate-3PL REFL about bad grade.PL
 ‘The students are irritated about bad grades.’ (German)
- (15) a. *A arrogância do filho preocupou a mãe.*
 DEF arrogance of.DEF son worry-PST.PFV.3SG DEF mother
 ‘The son’s arrogance worried his mother.’
- b. *A mãe se preocupou com a arrogância do filho.*
 DEF mother REFL worry-PST.PFV.3SG with DEF arrogance of.DEF son
 ‘The mother got worried by the son’s arrogance.’
 (Brazilian Portuguese; cf. Cançado et al., 2024: 123–124)

There are previous studies on the psych alternation in several Germanic and Romance languages, specifically German (e.g. Verhoeven, 2017; Hirsch, 2018), Dutch (e.g. Pijpops & Speelman, 2017), Portuguese (e.g. Cançado et al., 2024), Spanish (e.g. Marín & McNally, 2011; Melis, 2019), Catalan (e.g. Royo, 2018), Italian (e.g. Vietri, 2023, 2024), and Romanian (e.g. Alexiadou & Iordăchioaia, 2014). The literature on Romance languages is far more extensive than on Germanic languages. Empirical studies have established semantic effects on the frequency of the psych alternation. For example, the more agentive a verb is, the less it occurs in the detransitivized construction (Verhoeven, 2017; Pijpops & Speelman, 2017). Related to the cross-linguistic observation that the psych alternation is similar to the causative alternation (see Subsection 2.3.1.1), there is an unresolved debate on the syntactic and semantic nature of the detransitivized construction in the psych alternation of Germanic and Romance languages, as well as the closely related Slavic languages. In line of the “psych causative alternation” analysis of Darby et al. (2021), some authors classify the detransitivized construction as anticausative (Acedo-Matellán & Mateu, 2015; Hirsch, 2018), but other analyses call it middle voice (Kutscher, 2009; Będkowska-Kopczyk, 2014; Acedo-Matellán & Pineda, 2019), passive (Gross, 2000), or antipassive (Cresti, 1990; Kailuweit, 2005). Some further studies abstain from a syntactic classification and call it “inchoative” (Marín & McNally, 2011; Melis, 2019; Fábregas & Marín, 2020), but not all instances of the construction actually have inchoative semantics. The meaning of the example in (14b), for instance, is not inchoative, but can rather be interpreted as a state or activity. A robust syntactic and semantic analysis of the detransitivized construction that can be upheld cross-linguistically is yet to be found.

2.3.2 Case alternation of the experiencer

Besides the psych alternation, a second type of grammatical alternation has been described for object-experiencer verbs. It affects the case marking of the experiencer object. Landau (2009) mentioned this case alternation as one of several “psych properties” (see Section 2.1). It exists in several Romance languages, where the object of a subset of object-experiencer verbs can be marked with either accusative or dative case. The alternation is productive for most object-experiencer verbs in Spanish (cf. Cifuentes Honrubia, 2015; Kailuweit, 2018; Ganeshan, 2019; Fábregas & Marín, 2020), for some verbs in Catalan (cf. Royo, 2020), and marginally attested in Italian (cf. Kailuweit, 2005). (16) and (17) show example pairs for the accusative-dative alternation of the experiencer object in Spanish and Catalan, respectively. Accusative clitics mark the object in (16a) and (17a), while dative clitics appear in their place in (16b) and (17b).

- (16) a. *Pero los estudios lo aburri-eron.*
 but DEF study.PL 3SG.M.ACC bore-PST.PFV.3PL
 ‘But his studies bored him.’

- b. *Pero los estudios le aburri-eron.*
 but DEF study.PL 3SG.DAT bore-PST.PFV.3PL
 ‘But his studies bored him.’ (Spanish; cf. [Ganeshan, 2019: 16–17](#))
- (17) a. *A la Maria la molest-en els nens.*
 to DEF PRN 3SG.F.ACC annoy-3PL DEF child.PL
 ‘To Maria, kids are annoying.’
- b. *A la Maria li molest-en els nens.*
 to DEF PRN 3SG.DAT annoy-3PL DEF child.PL
 ‘To Maria, kids are annoying.’
 (Catalan < Romance < Indo-European, [stan1289](#); cf. [Royo, 2020: 386](#))

It has not been established in the literature whether the case alternation is a type of differential object marking. While systematic variation between dative and accusative marking of Spanish and Portuguese direct objects is classified as paradigmatic differential object marking, i.e. differentiation of direct objects with respect to which of two or more overt object markers they receive, by [Wiskandt \(2021b\)](#), this has not yet been applied to the case alternation of object-experiencer verbs. For Catalan, [Royo \(2020\)](#) has classified the phenomenon as differential indirect object marking.

Case selection for the experiencer object in Spanish does not follow a consistent pattern but is also not arbitrary: Dative marking has been linked to topicality and experiencer-first word order (cf. [Fábregas et al., 2017](#)) and to stativity (cf. [Fábregas & Marín, 2020](#)). Accusative case marking has been linked to causativity (cf. [Cifuentes Honrubia, 2015](#)). While several predictors have been proposed, there is no fixed correlation to semantic parameters like agentivity or stativity, or syntactic parameters like word order or redundant object clitics. Neither of these parameters has a fixed correlation with accusative or dative case. Several studies ([Miglio et al., 2013](#); [Vázquez Rozas & Miglio, 2016](#); [Kailuweit, 2018](#)) show that there is at least a probabilistic correlation to semantic and pragmatic properties. [Ganeshan \(2019\)](#) argues that agentivity is the crucial predictor for the choice between dative and accusative: Higher degrees of agentivity are correlated with accusative case, and lower degrees of agentivity are correlated with dative case.

In contrast to the other alternation dimensions addressed in the previous and following subsections, the case alternation of the experiencer is not found in German. Thus it does not play a larger role in this dissertation, as will be clarified in Section 3.1. This short description, however, will help to form a more complete picture of the alternation behavior of object-experiencer predicates.

2.3.3 Alternations between simplex and complex experiencer predicates

The inclusion of this third dimension of variation in the section on alternations is less obvious and anticipates the results of later chapters of this dissertation, particularly of Chapter 9. This subsection addresses the relation between object-experiencer LVCs, as defined in Section 2.2, and lexically corresponding synthetic object-experiencer verbs (henceforth abbreviated as SVs in the context of the relation to LVCs). I propose the following definition (18) for lexical correspondence between constructions.

- (18) LEXICAL CORRESPONDENCE
 A SV and a LVC are lexically corresponding in the sense of this dissertation if the SV has the same lexical root as the emotion noun inside the LVC.

An example pair of lexically corresponding object-experiencer SV and LVC is given below. The SV *ängstigen* (‘to frighten’) in (19a) corresponds to the emotion noun *Angst* (‘fear’) in the LVC in (19b). Both sentences have very similar meanings.

- (19) a. *Der Krieg in Europa **ängstig-t** viele Menschen.*
 DEF war in Europe frighten-3SG many people
 ‘The war in Europe frightens many people.’
 b. *Der Krieg in Europa **mach-t** vielen Menschen **Angst**.*
 DEF war in Europe make-3SG many people fear
 ‘The war in Europe frightens many people.’ (German)

German has many more such pairs, and sometimes several corresponding LVCs for one SV. But such pairs of corresponding object-experiencer SVs and LVCs exist also across other Germanic and Romance languages. (20) shows a pair of an object-experiencer SV (20a) and a lexically corresponding LVC (20b) in Portuguese.

- (20) a. *A explosão **horroriz-ou** o menino.*
 DEF explosion horrify-PST.PFV.3SG DEF boy
 ‘The explosion horrified the boy.’
 b. *A explosão **deu** **horror** ao menino.*
 DEF explosion give-PST.PFV.3SG horror to.DEF boy
 ‘The explosion horrified the boy.’ (Brazilian Portuguese)

While the constructions in these pairs have very similar meanings, and might seem synonymous at first glance (cf. the discussion of the question of synonymy vs. semantic differences between verbs and corresponding LVCs in Section 2.2), they are not fully interchangeable. Consider the examples in (21): The SV construction in (21a) and the LVC in (21b) are both acceptable German sentences. Exchanging the construction patterns between the two scenarios, however, makes both sentences in (21c) and (21d) less felicitous, albeit to different degrees. (21c) seems to be infelicitous for some speakers, but acceptable for others, while (21d) seems to be generally infelicitous. The discrepancies in acceptability among the sentences in (21) demonstrate different restrictions on argument selections, hinting at possible differences in meaning.

- (21) a. *Dass du die Prüfung bestanden hast, **freu-t** mich.*
 that 2SG DEF exam pass.PTCP have.2SG gladden-3SG 1SG.ACC
 ‘I am happy you passed the exam.’
 b. *Zeichnen **mach-t** mir **Freude**.*
 drawing make-3SG 1SG.DAT joy
 ‘I enjoy drawing.’
 c. *?Dass du die Prüfung bestanden hast, **mach-t** mir **Freude**.*
 that 2SG DEF exam pass.PTCP have.2SG make-3SG 1SG.DAT joy
 intended: ‘I am happy you passed the exam.’
 d. *??Zeichnen **freu-t** mich.*
 drawing gladden-3SG 1SG.ACC
 intended: ‘I enjoy drawing.’ (German)

The interaction between object-experiencer SVs and corresponding LVCs has only been discussed for Italian (Pisciotta & Masini, 2025) so far. The literature does not offer any previous analysis of the relation between object-experiencer SVs and LVCs in German. The studies presented later in this dissertation will fill this gap.

Chapter 3

Questions and how to answer them

This chapter defines the research questions for the dissertation and introduces the six research papers that follow in Part II.

3.1 From open questions to research questions

After the introduction to the research background, it is now necessary to delimit the exact scope of this dissertation and to make its research questions explicit. Three types of alternations operating on object-experiencer predicates in Germanic and Romance languages were addressed in Section 2.3: The psych alternation (Subsection 2.3.1), the case alternation affecting the experiencer object (Subsection 2.3.2), and the possible alternation between object-experiencer verbs and lexically corresponding LVCs 2.3.3. At this point, I limit the scope of this dissertation to those alternation dimensions that are present across Germanic and Romance languages. This limitation excludes the case alternation, which is only systematically present in some Romance languages, but not in German and other Germanic languages. We are, thus, left with the detransitivizing psych alternation and the alternation between object-experiencer verbs and LVCs. As addressed in Section 2.2, there is little previous research on object-experiencer LVCs. It is, therefore, necessary to study the properties of object-experiencer LVCs before their relation to corresponding SVs can be characterized. Furthermore, it will be useful for a thorough description of the interplay of object-experiencer SVs and LVCs to take into account any lexical restrictions that operate on the psych alternation and on LVC patterns, because they provide insights on semantic properties of both types of predicates. In order to give the lexical restrictions the space they deserve, I include an additional research question that addresses them. The result of these considerations is the following list of central research questions:

RQ 1 What is the grammatical function of the detransitivized construction in the psych alternation?

RQ 2 What is the grammatical function of object-experiencer light verb constructions?

RQ 3 Which lexical restrictions operate on the psych alternation and on object-experiencer light verb constructions?

RQ 4 How can the relation between object-experiencer verbs and lexically corresponding light verb constructions be characterized?

As a next step, I define a methodological limitation for the possible scope of this dissertation. I will only address research questions to which answers can be given based on corpus studies and theoretical argumentation. This excludes research questions that require experimental methods. The research outlook in Chapter 11 will define several such questions for possible subsequent research steps.

From the broad set of open questions regarding alternations of object-experiencer predicates and their functions, and narrowing down the field as explained above, I define the research questions of this dissertation as follows. Each research question is composed of a set of sub-questions that target different aspects of the question or require different methodologies.

RQ 1 What is the grammatical function of the detransitivized construction in the psych alternation?

- 1.1 Is there a systematic semantic function of the detransitivized construction in the German psych alternation?
- 1.2 Which voice function can the psych alternation in German be mapped to?
- 1.3 Are these functions a cross-linguistic property of the detransitivized construction in the psych alternation?

RQ 2 What is the grammatical function of object-experiencer light verb constructions?

- 2.1 Is there a systematic semantic function of German object-experiencer LVC patterns in general?
- 2.2 If there is such a function, are there functional differences between the several object-experiencer LVC patterns?
- 2.3 Are these functions a cross-linguistic property of object-experiencer LVCs?

RQ 3 Which lexical restrictions operate on the psych alternation and on object-experiencer light verb constructions?

- 3.1 Are there systematic lexical restrictions on the psych alternation in German?
- 3.2 If there are, which factors condition these lexical restrictions on the psych alternation in German?
- 3.3 Are there systematic lexical restrictions on object-experiencer LVC patterns in German?
- 3.4 If there are, which factors condition these lexical restrictions on object-experiencer LVC patterns in German?
- 3.5 Do these lexical restrictions follow cross-linguistic regularities?

RQ 4 How can the relation between object-experiencer verbs and lexically corresponding light verb constructions be characterized?

- 4.1 Is there a systematic alternation between object-experiencer verbs and lexically corresponding LVCs in German?
- 4.2 If there is, what is the function of the LVCs in relation to the corresponding verbs?
- 4.3 In how far do object-experiencer LVC patterns complement the psych alternation?

In order to find answers to these questions, I conducted six studies, reported in research papers that are included as the following six chapters in this dissertation.

3.2 Setting the stage for six studies

This section introduces the six research papers that form the main body of this dissertation. A short summary for each of these papers is provided here.¹ The full papers follow in Part II, in the same order as the summaries below. The papers are organized in three pairs. The first pair investigates properties of the detransitivized construction in the psych alternation, the second pair investigates the distribution of patterns of object-experiencer LVCs, and the third pair investigates the interaction between the two domains.

3.2.1 Studies on the psych alternation

The first two papers treat the psych alternation (see Subsection 2.3.1). More specifically, they investigate properties of the detransitivized construction in the psych alternation, first in German, and then from a cross-linguistic perspective.

3.2.1.1 Detransitivization of object-experiencer verbs in German

Wiskandt (2021a)², included in this dissertation as Chapter 4, studies the detransitivized construction in the psych alternation of German and lexical restrictions on its use.

Topic Object-experiencer verbs in German such as *ärgern* (‘to anger’), *erschrecken* (‘to startle’) and *freuen* (‘to gladden’) exhibit the psych alternation as characterized in Subsection 2.3.1, in which the transitive, active voice construction of an object-experiencer verb, such as (1a), alternates with a detransitivized construction marked by a reflexive pronoun, such as (1b).

- (1) a. *Der Lärm im Garten ärgert mich.*
 DEF noise in.DEF garden anger-3SG 1SG.ACC
 ‘The noise in the garden makes me angry.’
 b. *Ich ärgere mich (über den Lärm im Garten).*
 1SG anger-1SG REFL.1SG about DEF noise in.DEF garden
 ‘I am angry (about the noise in the garden).’ (German)

The detransitivized construction, classified as an anticausative construction in the paper, is lexically restricted. While it is productive for many German object-experiencer verbs as it is for *ärgern* in (1b) and (2a), it is infelicitous with many other object-experiencer verbs. For example, *nerven* (‘to annoy’) cannot form the detransitivized construction, as the infelicitous example in (2b) shows. Previous research on the psych alternation in German (Verhoeven, 2017) has demonstrated lexical semantic effects on the frequency of the detransitivized construction, but there is no previous account of the lexical restrictions.

- (2) a. *Paul ärgert sich.*
 PRN anger-3SG REFL
 ‘Paul is angry.’
 b. **Paul nervt sich.*
 PRN annoy-3SG REFL
 intended: ‘Paul is annoyed.’ (German; cf. Wiskandt, 2021a: 246)

¹For the two research papers published in German (Chapters 4, Wiskandt, 2021a, and 6, Wiskandt & Turus, 2023) I provide more extensive English summaries.

²The paper was published after peer review in *Germanistische Werkstatt* 11. A previous version was presented at the conference “9. Internationale Germanistische Werkstatt” in Opole, Poland, in 2020.

Research objectives The primary aim of the paper is to describe and explain the lexical restrictions operating on the psych alternation in German. On the descriptive side, it aims to map which object-experiencer verbs allow for the formation of the detransitivized construction and which do not. On the explanatory side, it focuses on those verbs that do not form the detransitivized construction, and aims to identify features in them that prevent them from being detransitivized. As an implicit secondary objective, the paper contributes to the characterization of the psych alternation by identifying features of the detransitivized construction that are incompatible with the aforementioned blocking features of certain verbs. The paper targets RQ 3 of the dissertation, particularly subquestions 3.1 and 3.2.

Method In order to identify the lexical restrictions, a sample of 75 German object-experiencer verbs, covering different types of emotions, is analyzed. The sample was compiled through a mixed approach, relying on lists compiled by native speakers and verbs mentioned in previous literature. In reality, all verbs mentioned in previous literature taken into account by the paper were also listed by native speakers.

For each verb, it was determined whether a reflexive-marked construction is felicitous without a cooccurrence of the adverb *selbst* ('self'), which would enforce a proper reflexive interpretation, and with a singular experiencer, since a plural experiencer would facilitate a reciprocal interpretation. In a next step, all verbs for which reflexive-marked constructions were determined as felicitous were further examined with respect to the possible interpretations of that construction. In particular, it was determined for each verb whether or not its reflexive-marked construction can be interpreted as an anticausative-like construction, i.e., a detransitivized construction of the German psych alternation. For those verbs where this target interpretation was found to be unavailable, a last step determined the interpretation preferred instead.

The determinations were made using a mixed-methods approach. The first source for determinations were acceptability and interpretation judgements provided by native speakers of German. The second source were occurrences of the verbs in corpus data. Combining two data sources comes with the risk that the results might diverge. In this case, speaker judgments might diverge from actual occurrences in corpus data. However, in the vast majority of verbs, both data sources provided the parallel results, and the few cases of divergence were judged unproblematic. A hypothetical problematic case would be constituted by a construction that is judged impossible by speakers, but broadly attested in corpus data. Fortunately, there was no such case. In the cases of divergence, the study gave preference to speakers' judgements: When a construction was not or only marginally attested in corpus data, but all speakers accepted it, it was determined to be possible, and when a hapax occurrence of a construction was found, but all speakers deemed it unacceptable, it was determined to be impossible for the purpose of the study. There were no further borderline cases beyond these scenarios.

The result of the methodology is a division of the verb sample into three categories: 25 verbs are compatible with the anticausative-like detransitivized construction (labeled as "group OK"). 15 verbs can form a reflexive-marked construction, but without the target interpretation (group #). 35 verbs cannot form a reflexive-marked construction (group *). The starting assumption of significant lexical restrictions on the detransitivized construction is confirmed. First observations on the data show that verbal prefixes and particles appear as clustered in particular categories. In the sample, verbs with the particle *ab* allow the detransitivized constructions, and verbs with the prefix *ver-* or the particle *an* cannot form any reflexive-marked construction. But there are also prefixes (*er-*, *be-*) and a particle (*auf*) that appear in both groups.

Analysis The analysis of the results focuses on finding semantic properties in the verbs of the sample that influence their compatibility with the detransitivized construction and can thereby account for their grouping into group OK, # or *. The paper identifies one feature that facilitates the availability of the detransitivized construction, and several features that seem to block it.

First, the paper observes that the detransitivized construction is available for all verbs that implicate that the experiencer is conscious about how the respective emotion arises. This is exemplified by the verb *interessieren* (‘to interest’). Consciousness is a typical feature of an agent, agents are, in turn, typically expressed as subjects in German, and bringing the experiencer into the grammatical relation of subject is a function of the detransitivized construction.

As the main part of the analysis, the paper describes three features of object-experiencer verbs that are incompatible with the detransitivized construction. First, it is proposed that verbs that entail affectedness of the experiencer cannot form the detransitivized construction. Following the understanding of affectedness of Beavers (2011), the paper argues that verbs entailing a “quantized change”, the highest level of affectedness, do not allow for a detransitivized construction. This is the case for all verbs with the prefixes *ver-* and *ent-*, such as *entmutigen* (‘to discourage’), as well as some further verbs of the sample. Three semantic tests adopted from Beavers (2011) distinguish the designated subgroup, for which affectedness is argued to be the factor blocking the detransitivized construction, from the verbs of the OK group, that all diverge in at least one of the tests. Second, it is proposed that verbal particles of spatial direction, like *an* in *anekeln* (‘to gross out’), block the formation of the detransitivized construction. And third, all verbs of the sample that constitute synchronically transparent metaphors, such as *erschüttern* (‘to unsettle’, lit. ‘to jolt’), also cannot form the detransitivized construction³. Some verbs of the * group feature more than just one of the three proposed blocking factors, such as the colloquial verb *anpissen* (‘to disgruntle’, lit. ‘to urinate on’), which is a transparent metaphor, but also encompasses the particle *an*.

After this proposal, the paper discusses the relation of the detransitivized construction to other valency-reducing constructions based on the verb sample. It is observed that for some verbs that cannot form the detransitivized construction, a stative passive construction is possible, and vice versa. This hints at a possible complementary distribution. However, such a hypothesis must be dismissed, since some verbs of the sample, such as *interessieren* (‘to interest’), can form both constructions, and some other verbs, such as *wurmen* (‘to rankle with’), can form neither. Lastly, the paper discusses two groups of verbs that can form reflexive-marked constructions, but only with proper reflexive interpretations, and anecdotally relays how the lexical restrictions proposed in the analysis can also explain the behavior of object-experiencer verbs loaned from English into contemporary colloquial German associated with younger speakers.

Results The paper presents a first systematic description of how the detransitivized construction of the psych alternation is lexically restricted, demonstrates regularities in the restrictions, and proposes semantic explanations for the regularities. In this regard, it gives an answer to subquestion 3.1 of RQ 3 of this dissertation, provides insights for subquestion 3.2, but also contributes semantic arguments to subquestion 1.1 of RQ 1. Furthermore, it assumes that the detransitivized constructions are a type of anticausative constructions; this hypothesis is further developed in Chapter 5 (Wiskandt, 2026) and Chapter 9 (Wiskandt, submitted).

³This finding shows parallels to the subsequent account of Reinöhl & Ellison (2024) for the effects of metaphors on argument realization. Metaphoricity as an explanation for restrictions on the psych alternation deserves further exploration in a future study.

3.2.1.2 Detransitivization of object-experiencer verbs from a cross-linguistic perspective

Wiskandt (2026)⁴, included in this dissertation as Chapter 5, studies the syntactic nature of the detransitivized construction in the psych alternation of Romance and Germanic languages from a typological perspective.

Topic The psych alternation in Romance and Germanic languages belongs to the detransitivizing type (cf. Rott et al., 2024). It derives detransitivized constructions, with the experiencer as subject and the non-experiencer argument in a prepositional phrase, from transitive object-experiencer verbs. As described in Subsection 2.3.1.2, the detransitivized construction is marked by a reflexive pronominal element in Romance and Germanic languages. While the construction is generally well-described, its syntactic classification is still under debate. Different studies on different languages in the two genera and carried out within different theoretical frameworks propose a variety of classifications, e.g. as reflexive, anticausative, or antipassive. Chapter 4 (Wiskandt, 2021a) assumes that it is a type of anticausative construction but does not provide an argumentation for this assumption. The observation that the psych alternation often shares marking with the causative alternation is mentioned in the literature, but has not been systematically substantiated.

Research objectives In light of the deadlocked debate in the literature and the largely language-specific classifications of a cross-linguistic phenomenon, the paper takes a new approach with a typological perspective. Its objective is to propose and test a research method for classifying the type of detransitivization found in the psych alternation based on its overlap with established detransitivizing voice functions. The classification would contribute to RQ 1.2 and 1.3 of this dissertation. If psych detransitivization is a type of anticausativization, it should share marking with typical anticausatives across languages. By contrast, if it is a type of antipassivization, it should share marking with typical antipassives more often than with typical anticausatives.

Method The methodology of the paper is based on Bahrt (2021)’s concept of voice syncretism. A voice syncretism is constituted by two or more voice functions encoded by the same marker. The study checks possible syncretism of psych detransitivization with five voice functions (reflexive, reciprocal, anticausative, passive, antipassive) in an initial language sample. The sample comprises, beyond several Romance and Germanic languages, languages of three further Indo-European genera, and five languages of four families outside of Indo-European. The determination of voice syncretisms is based on descriptions of voice markers and their functions in reference grammars and further literature.

Analysis The voice syncretisms of psych detransitivization determined by the study show clear tendencies. All psych detransitivization markers in the sample are syncretic with an anticausative function. Syncretism with all other voice functions is less frequent. Syncretism with the antipassive is particularly rare. In many cases, the voice syncretism involves more than two voice functions and shows properties of a middle voice marker. The results allow for two possible conclusions: Either, psych detransitivization is always marked like anticausativization and thus possibly a subtype of it. Or, psych detransitivization is preferably marked by a polyfunctional detransitivizing marker, and

⁴The paper was published after peer review in the edited volume *Psych Predicates in Romance Languages*. Previous versions were presented at the workshop “Psych Predicates in Romance Languages” in Düsseldorf, Germany, in 2023, and at the “Purdue Linguistics Symposium” in West Lafayette, IN, USA, in 2024.

if none is available, an anticausative marker is used instead. Based on the sample, the first, simpler explanation should be preferred.

Results The paper takes a cross-linguistic approach to a theoretical question usually addressed for individual languages. To solve the problem for the analysis of Romance and Germanic languages, it develops a new typological method and tests it successfully on an initial sample. The results show that the detransitivized construction in the psych alternation is most closely related to the anticausative, and that it is possibly a subtype of it. This provides a typological substantiation to the observation mentioned in previous literature, a confirmation of the assumption in Chapter 4, and an answer to RQ 2.1 of this dissertation. It will be taken up again in Chapter 9 (Wiskandt, submitted). Furthermore, it leads to the necessary subsequent question whether the connection to the anticausative also manifests in a testable way in its semantics.

3.2.2 Studies on light verb constructions

The second pair of papers treats object-experiencer light verb constructions (LVCs). The two papers each investigate the compatibility of a set of LVC patterns with a sample of emotion nouns and search for patterns in the results. Again, the first paper studies German and the second paper takes a cross-linguistic perspective.

3.2.2.1 Patterns of object-experiencer LVCs in German

Wiskandt & Turus (2023)⁵, included in this dissertation as Chapter 6, study the compatibility of German emotion nouns with three patterns of object-experiencer LVCs.

Topic German features several productive patterns of object-experiencer LVCs (cf. Section 2.2), among them patterns that consist of one of the verbs of transfer *bringen* (‘to bring’) and *versetzen* (‘to transfer’), a preposition, and an emotion noun. The paper discusses three such patterns: *in N bringen* (lit. ‘to bring into N’), exemplified in (3a), *zu N bringen* (lit. ‘to bring to N’), exemplified in (3b), and *in N versetzen* (lit. ‘to transfer into N’), exemplified in (3c).

- (3) a. *Uli Hoeneß bring-t nichts so leicht in Panik.*
 PRN bring-3SG nothing so easy into panic
 ‘Uli Hoeneß does not panic so easily.’
 b. *Diese Jungs bring-en ihr Publikum regelmäßig zur Ekstase.*
 DEM boy.PL bring-3PL 3PL.POSS audience regularly to.DEF ecstasy
 ‘These guys regularly send their audience into ecstasy.’
 c. *Ein weiteres Erdbeben ha-t gestern morgen die Bevölkerung in Angst versetz-t.*
 INDF further earthquake have-3SG yesterday morning DEF population into fear
 transfer-PTCP
 ‘Another earthquake terrified the population yesterday morning.’

(German; cf. Wiskandt & Turus, 2023: 151, from DeReKo HMP12/NOV.00595, NUN05/DEZ.01241, A98/MAR.18394)

These LVC patterns are causative, i.e. they entail that an action or property of the non-experiencer argument (labeled ‘stimulus’ in the paper) is the cause of the emotion that the experiencer feels. But the use of those patterns is restricted: Not all emotion nouns can be used in them equally.

⁵The paper was published after peer review in *Germanistische Werkstatt* 12. A previous version was presented at the “15th Forum for Germanic Language Studies Conference” in Reading, United Kingdom, in 2022.

Some emotion nouns do not seem to appear in object-experiencer LVCs at all, whereas some emotion nouns can be used in one pattern, but not in another. For example, the emotion noun *Stress* ('stress') can be used in the *in N bringen* pattern (4a), but not in the *zu N bringen* pattern (4b).

- (4) a. *Das Pflegepersonal wird von den ungeduldigen Patienten in Stress gebracht.*
 DEF nursing staff become.3SG by DEF impatient patient.PL into stress
 bring.PTCP
 'The nursing staff is stressed by the impatient patients.'
- b. **Das Geschrei der Kinder bring-t die Mutter zum Stress.*
 DEF shouting DEF.GEN child.PL bring-3SG DEF mother to.DEF stress
 intended: 'The children's shouting stresses the mother out.'
- (German; cf. Wiskandt & Turus, 2023: 152, a. from DeReKo BRZ07/OKT.23765)

Research objectives The paper aims to find out why the three LVC patterns *in N bringen*, *zu N bringen*, and *in N versetzen* behave differently with respect to their compatibility with emotion nouns and whether this can be attributed to idiosyncratic or systematic factors. As a database for the discussion of these questions, it first needs to analyze with which emotion nouns each pattern is compatible. These objectives target RQ 2 (subquestion 2.2) and RQ 3 (subquestions 3.3 and 3.4).

Method The paper presents a corpus study. The study was conducted for a sample of 60 German emotion nouns. The sample was compiled based on lists of nouns provided by native speakers, which were filtered to ensure only nouns with a clear emotion meaning are selected. For instance, the nouns *Stärke* ('strength') and *Wahnsinn* ('frenzy, insanity') were excluded, because, despite possible emotional interpretations, primarily denote non-emotional concepts. Each of the 60 nouns was checked for occurrence in each of the three LVC patterns in the German Reference Corpus (DeReKo). In cases of doubt, e.g. when there was a very small number of occurrences of a questionable construction, acceptability judgements from native speakers complemented the corpus data.

Analysis Regarding general distribution of the three object-experiencer LVC patterns, the results show that *zu N bringen* is the least widely distributed pattern, as it was only attested with 9 out of 60 nouns. The *in N versetzen* pattern is by far the most widely distributed pattern, found with 34 nouns in the sample. A third of the noun sample were attested in more than one LVC pattern. All nouns that are compatible with one of the *bringen* patterns are also used in the *in N versetzen* pattern. Based on the results of the corpus study, the emotion nouns of the sample are categorized into five groups: The 4 nouns in group IB-ZB-IV are compatible with all three LVC patterns; the 11 nouns in group IB-IV are compatible with the *in N bringen* and *in N versetzen* patterns; the 5 nouns in group ZB-IV are compatible with the *zu N bringen* and *in N versetzen* patterns; the 14 nouns in group IV are compatible with only the *in N versetzen* pattern; and the 26 nouns in group X are compatible with none of the three LVC patterns.

Some observations on the meaning of the nouns in the different groups can be made: Nouns in group IB-ZB-IV (e.g. *Begeisterung* 'enthusiasm' and *Euphorie* 'euphoria') denote very intense emotions. Group IB-IV contains nouns denoting states of only negative (e.g. *Wut* 'rage') or underspecified (e.g. *Aufregung* 'excitement') emotions, but no positive emotions. The semantics of the nouns in group ZB-IV includes not only an emotional state, but also its onset: The nouns

denote emotions that begin with a specific stimulus event at a determinable point in time. For instance, the emotional state denoted by *Erstaunen* (‘astonishment’) begins at a specific point in time where the experiencer is astonished by an event that contradicts their expectations. The nouns in group IV all denote states, but there are no further regularities, e.g. with respect to positive or negative emotions or their intensity. Group X is not a homogeneous group. This, however, was to be expected. All nouns in this group have some property that prevents them from appearing in any object-experiencer LVCs, but this does not have to be the same property for all nouns. The paper proposes that the nouns are not used in object-experiencer LVCs because either they are semantically incompatible with a causative scenario, or they denote emotions that only temporarily exist while the stimulus is present but do not entail a result state, or they are transparent rection compounds that already specify the cause of the emotion within the noun.

The *in N versetzen* pattern is compatible with four groups, i.e. with all nouns that do not block causative LVC patterns in general. It is not restricted to one particular subtype of emotion nouns, leading to the argument that it is the most semantically unmarked among the three patterns. The *bringen* patterns are semantically more marked types of causatives. The paper proposes the following functions and periphrases for the LVC patterns: The *in N versetzen* pattern denotes a causativization without aktionsart specification, and can be paraphrased as ‘to cause the experiencer to feel the emotion denoted by N’. The *in N bringen* pattern denotes the causativization of a change of state, and can be paraphrased as ‘to cause emotional state of the experiencer to change into the state denoted by N’. And the *zu N bringen* pattern denotes the causativization of the onset of a state, and can be paraphrased as ‘to cause the experiencer to reach the point at which the emotion denoted by N sets in’.

Results The outcome of a study is a systematic description of the compatibility of three German object-experiencer LVC patterns with different emotion nouns, accompanied by explanations for the use of certain groups of emotion nouns in a particular pattern and for the general incompatibility of a large group of nouns with all LVC patterns. The results contribute to answering subquestion 3.3 and 3.4 of RQ 3. Furthermore, the paper presents motivated hypotheses about the semantics of the three LVC patterns, contributing to subquestion 2.1 and 2.2 of RQ 2.

3.2.2.2 Patterns of object-experiencer LVCs from a cross-linguistic perspective

Wiskandt (2025)⁶, included in this dissertation as Chapter 7, studies the distribution of object-experiencer LVC patterns across Germanic and Romance languages.

Topic Patterns of object-experiencer LVCs vary with respect to the emotion nouns they are compatible with – within languages, like Chapter 6 (Wiskandt & Turus, 2023) shows for German, but also across languages. Each language has its own specific inventory of LVC patterns, inventories of closely related languages seem to be similar. But it is unclear whether lexical restrictions of the patterns are also similar, and whether light verb selection is arbitrary or conditioned by semantics.

Research objectives The paper pursues the question to what extent the use of object-experiencer LVC pattern differs among Germanic and Romance languages. It investigates whether there are cross-linguistic regularities with respect to the use of the patterns and lexical restrictions on them, and whether there is a significant difference between the Romance and Germanic genera. This also

⁶The paper was published after peer review in the edited volume *Light verbs. Synchronic and diachronic studies*. A previous version was presented at the conference “54th Linguistic Symposium on Romance Languages” in Provo, UT, USA, in 2024.

aims at verifying or falsifying the hypothesis from previous literature that light verb selection is not arbitrary, but conditioned by meaning. In a case study, the paper targets two LVC patterns, with the light verbs ‘make’ and ‘give’, that are attested in both Germanic and Romance languages. It aims to RQ 3 (subquestions 3.4 and 3.5) of this dissertation.

Method The paper presents a corpus study, investigating the use of the two LVC patterns with ‘make’ and ‘give’ light verbs in comparable corpora for three Germanic languages (German, English, Danish) and three Romance Languages (Catalan, Spanish, Portuguese). For a sample of 30 emotion nouns per language, it was determined whether LVCs of the two patterns are attested in the corpora.

Analysis The results of the corpus study show which pattern is used in which language, which emotion nouns appear in them, and several regularities that can be detected regarding these questions. The ‘give’ pattern is attested – albeit to significantly varying extent in all languages of the sample, and generally the more frequent pattern. By contrast, the ‘make’ pattern is unattested in English and only marginally attested in Spanish. Most languages have a clear preference for one of the two patterns; only Catalan exhibits a balance between them. There are clear contrasts between the six languages, but the results show no significant difference between the Germanic and Romance genera. In search for possible semantic effects on light verb selection, the paper examines contrasts regarding different emotion nouns. Aside from some smaller tendencies, it discusses the possible effect of emotion valence, i.e. whether the emotion denoted by the noun is associated with positive or negative affect. In the sample of the study, there is a correlation between positive emotions and availability of the ‘give’ pattern, but no equally strong tendency regarding negative emotions with the ‘make’ pattern.

Results The results support the claim that light verb selection is not arbitrary, as semantic preferences are visible, even though the effects are small and preferences of languages for a certain light verb appear to be stronger. Regarding cross-linguistic contrasts, differences are more significant between individual languages than between the two genera of Germanic and Romance. The results for German complement the results from Chapter 6 (Wiskandt & Turus, 2023) by providing data for two more LVC patterns. Beyond its contribution to RQ 3, particularly subquestion 3.5, the paper also contributes to subquestion 2.2 and 2.3 of RQ 2 by addressing semantic effects in the choice of LVC patterns that are related to the function of the patterns.

3.2.3 Studies on the interaction of both dimensions

The last two papers are concerned with the interaction between object-experiencer verbs and corresponding object-experiencer light verb constructions. They build on the results of the first four papers and build a bridge between the two subareas of the psych domain. Both papers analyze German data.

3.2.3.1 Differences between verbs and *in N versetzen* LVCs

Wiskandt & Turus (2025)⁷, included in this dissertation as Chapter 8, study the relation between German object-experiencer verbs and lexically corresponding LVCs of the *in N versetzen* pattern.

⁷The paper was published after peer review in the edited volume *How to Do Things with Corpora: Methodological Issues and Case Studies on Grammar*. A previous version was presented at the conference “Grammar and Corpora” in Ghent, Belgium, in 2022.

Topic As per the results of Chapter 6, the *in N versetzen* (lit. ‘transfer into N’) pattern is the most widely distributed pattern of object-experiencer LVCs in German. It is attested with many different emotion nouns. For a significant number of those nouns, there are corresponding synthetic object-experiencer verbs (SVs) with the same lexical root, producing pairs of object-experiencer SVs and lexically corresponding LVCs. The semantic or functional difference between the two constructions in such pairs is unclear.

Research objectives The goal of the paper is to determine the above-mentioned difference between object-experiencer SVs and lexically corresponding *in N versetzen* LVCs. It starts with the hypothesis that there is a systematic difference in meaning, that the difference in meaning leads to a difference in usage, and that the difference in usage should be visible in corpus data. In particular, the study aims to find an effect of the types of experiencer and non experiencer argument on the choice of object-experiencer SV vs. *in N versetzen* LVC. These research objectives contribute to RQ 4 (subquestions 4.1 and 4.2) of the dissertation.

Method The paper presents a quantitative corpus study on a sample of ten pairs of lexically corresponding object-experiencer SVs and LVCs. For each verb and LVC, a sufficient amount of data was extracted from the German Reference Corpus (DeReKo) if possible, such that after removing false hits, 100 occurrences entered the analysis, leading to a total database of 1,983 occurrences. The data were annotated for eight parameters, with a focus on properties of the arguments. For a statistical analysis, correlation tests were conducted before the fitting of a binomial logistic mixed-effects model.

Analysis The statistical analysis established a significant effect of the semantic types of both the experiencer and the non-experiencer argument. For instance, animate non-experiencer arguments, such as human beings, significantly favor the choice of the LVC, as do collective experiencers, such as audiences and official bodies. Events as non-experiencer arguments, by contrast, favor the choice of the SV. After the statistical analysis, the paper motivates the results with a semantic argumentation. The proposed semantic difference that explains the different usage in corpus data lies in causativity. The SV is ambiguous between a causative and a non-causative reading, while the LVC only has a causative reading. In that sense, the *in N versetzen* LVC pattern acts as a marker of causativity. The argument is supported by a set of semantic tests which are applied to the SVs and LVCs of the sample. The tests target the presence of a result state, the possibility to deny culmination of the emotion, and the possibility to deny a causal relation to the non-experiencer argument.

Results The study produces two main results: First, it proves that there is a systematic functional difference between object-experiencer SVs and LVCs of the *in N versetzen* pattern. Second, it presents an analysis of the LVC pattern as a marker of causativity, which can also explain the functional difference. The first result provides an answer to subquestion 4.1 of RQ 4 of this dissertation. The second result, while contributing to subquestion 4.2 of RQ 4, additionally answers subquestion 2.1 of RQ 2.

3.2.3.2 Psych alternation beyond the psych alternation

Wiskandt (submitted)⁸, included in this dissertation as Chapter 9, takes into account the findings from Chapters 4, 5, 6, 7, and 8 (Wiskandt, 2021a, 2026; Wiskandt & Turus, 2023; Wiskandt, 2025; Wiskandt & Turus, 2025) and studies the relation between object-experiencer SVs and LVCs and their constructional variation from a theoretical perspective.

Topic The relation between German object-experiencer SVs and lexically corresponding LVCs has already been addressed and proven to be systematic in 8 (Wiskandt & Turus, 2025). But the competition between SVs and LVCs is even more complex: First, as Chapter 4 (Wiskandt, 2021a) has shown, many SVs bring along a detransitivized psych alternation construction. Second, as Chapters 6 and 7 have shown, for many emotion nouns more than one object-experiencer LVC pattern is available. This produces complex sets of constructions with the same lexical root that can be used to describe similar emotion scenarios.

Research objectives The objective of the paper is to provide an analysis for the relation between the different constructions of SVs and LVCs and for the function of each construction in it. It builds on the hypothesis that, beyond the established psych alternation, there is an extended alternation of German object-experiencer predicates. The paper targets all aspects of RQ 4 of this dissertation.

Method The focus of the paper is theoretical, although it occasionally relies on corpus data. As a baseline, it discusses the properties of syntactic alternations and how they are reflected in the relation between object-experiencer SVs and LVCs. It then elaborates a modified definition of clause alternations that allows for including constructions in which the lexical root is contained in a noun. Using the modified definition, it proceeds to the description of the argument expression patterns produced by the SV in active voice, by the detransitivized construction of the SV, and by object-experiencer LVCs. For the analysis of those patterns, it employs the concepts of diathesis and epithesis as put forward by Cysouw (2023).

Analysis The paper argues that the relation between the various construction patterns of object-experiencer SVs and LVCs behave like a complex clause alternation. Regarding the function of the different construction patterns, it analyzes not only the detransitivized constructions, but also the lexically corresponding LVCs as diatheses of the SV. Each construction pattern produces two or more diatheses in the sense of Cysouw (2023), as they all allow for variation regarding overt expression of arguments. But there are clear common denominators: The detransitivized construction pattern of the SV always enforces that no causer role is expressed, and thereby behaves like an anticausative marker. By contrast, the LVC patterns always enforce the expression of the causer role, and thereby behave like causative markers. The object-experiencer LVCs corresponding to object-experiencer SVs constitute non-prototypical uses of causative marking (cf. Kittilä, 2009). The different object-experiencer LVC patterns of German all mark the same diatheses, but have other functional differences between them that do not affect the expression of argument roles. Consequentially, they are classified as epitheses.

⁸The paper was submitted for publication. At the time of submission of this dissertation, it is undergoing peer review. Previous versions were presented at the conferences “LinPin” in Aachen, Germany, and “Going Romance” in Braga, Portugal, in 2024.

Results The paper presents a comprehensive theoretical analysis of the systematic constructional variation of German object-experiencer predicates. The detransitivized psych alternation construction as well as object-experiencer LVC patterns mark diatheses, and they behave like anticausative and causative marking respectively. These findings confirm hypotheses put forward in Chapters 4 (Wiskandt, 2021a) and 6 (Wiskandt & Turus, 2023), and confirm the results of Chapters 5 (Wiskandt, 2026) and 8 (Wiskandt & Turus, 2025). The results largely answer subquestions 4.1, 4.2 and 4.3 RQ 4 of this dissertation. As a side product, it also provides further answers to RQ 1 (subquestion 1.2) and RQ 2 (subquestion 2.1 and 2.2).

Part II

Publications

Chapter 4

Detransitivization of object-experiencer verbs in German

Wiskandt, Niklas. 2021. Paul ärgert sich, nervt sich aber nicht. Semantische Merkmale deutscher Objekt-Experiencer-Verben und ihr Einfluss auf Antikausativkonstruktionen. *Germanistische Werkstatt* 11. 245-259. DOI: [10.25167/pg.4685](https://doi.org/10.25167/pg.4685)

Chapter 5

Detransitivization of object-experiencer verbs from a cross-linguistic perspective

Wiskandt, Niklas. 2026. The Nature of Psych Detransitivization in Romance and Germanic: A Typological Approach. In Niklas Wiskandt, Elga Cremades & Rolf Kailuweit (eds.), *Psych Predicates in Romance Languages* (LiVVaL: Linguaggio e Variazione | Variation in Language 7), Venice: Edizioni Ca'Foscari – Venice University Press.

Chapter 6

Patterns of object-experiencer LVCs in German

Wiskandt, Niklas & Dila Turus. 2023. Wie man Linguisten in Begeisterung versetzt: Drei Muster von Funktionsverbgefügen mit Objekt-Experiencern. *Germanistische Werkstatt* 12. 149–162. DOI: [10.25167/pg.5226](https://doi.org/10.25167/pg.5226)

Chapter 7

Patterns of object-experiencer LVCs from a cross-linguistic perspective

Wiskandt, Niklas. 2025. Light verb constructions with experiencer objects in Germanic and Romance: A corpus-based contrastive perspective on ‘make’ and ‘give’ patterns. In Anna Riccio & Jens Fleischhauer (eds.), *Light verbs. Synchronic and diachronic studies*, 97–122. Düsseldorf: Düsseldorf University Press. DOI: [10.1515/9783111388878-005](https://doi.org/10.1515/9783111388878-005)

Chapter 8

Verb-LVC relations I: Differences between verbs and *in N versetzen* LVCs

Wiskandt, Niklas & Dila Turus. 2025. Verb-LVC Pairs with Experiencer Objects in German: Differences in Usage and Meaning. In Torsten Leuschner, Anaïs Vajnovszki, Gauthier Delaby & Jóhanna Barðdal (eds.), *How to Do Things with Corpora: Methodological Issues and Case Studies on Grammar*, 195–235. Berlin, Heidelberg: J.B. Metzler. DOI: [10.1007/978-3-662-69690-3_8](https://doi.org/10.1007/978-3-662-69690-3_8)

Chapter 9

Verb-LVC relations II: Psych alternation beyond the psych alternation

Wiskandt, Niklas. submitted. Psych alternation beyond the psych alternation. Diathesis and epithesis in alternating object-experiencer predicates. DOI: [10.5281/zenodo.17938680](https://doi.org/10.5281/zenodo.17938680)

Part III

Discussion

Chapter 10

Supplementary studies

Due to the comprehensive character of Chapter 9, which built on the other five chapters of Part II and connected their results, this dissertation does not continue with a usual discussion chapter. The discussion of the outcomes of the publication has, for that matter, already happened in the previous chapter. Instead, this chapter presents a selection of supplementary corpus studies which fill in some further missing answers to the research questions. Section 10.1 draws further attention towards Romance languages. Two corpus perspectives on the psych alternation in different Romance languages complement Chapters 4 and 5, and contribute to subquestions 1.3 and 3.5. An extension of the cross-linguistic study on object-experiencer LVCs in Chapter 7 provides further insights for questions 2.3 and 3.5. Section 10.2, on the other hand, complements Chapter 9 by a corpus study on the extended alternation of German object-experiencer predicates.

10.1 A Romance side glance

10.1.1 The psych alternation in corpora of Romance languages

In this subsection, I present findings from two corpus studies on object-experiencer verbs in Romance languages as an object of comparison for the study on German and the typological perspective. Both studies target the psych alternation, and specifically, the use of the detransitivized construction, its relation to other morphosyntactic parameters, and semantic effects on them.

Corpus study on Spanish object-experiencer verbs The first of the two studies is a pilot corpus study on object-experiencer verbs in Spanish (stan1288).¹ It is motivated by the observation that the frequency of the detransitivized construction seems to vary greatly among Spanish object-experiencer verbs, for which no explanation was provided in the literature. To change this, I investigated the frequency of the detransitivized construction, the interpretations available for it, and the occurrence of non-experiencer arguments expressed in prepositional phrases, based on a sample of 15 verbs. The verb sample was selected to cover a diverse range of emotions and based on classifications in previous works (Marín & McNally, 2011; Marín, 2015; Gehrke & Marco, 2015). For three of the verbs, it was predicted in the literature (cf. Gehrke & Marco, 2015) that they should not form detransitivized constructions.

The search in CORPES XXI (Real Academia Española, 2020), a corpus of contemporary Spanish in the 21st century, was restricted to 3rd person occurrences of the verbs, because 3rd person

¹The study was intended as a pilot for a larger quantitative corpus study on the alternation behavior of Spanish object-experiencer verbs, though the larger study was not conducted later. The pilot study was presented as Wiskandt (2020). Data are available upon request.

reflexive pronouns, which mark the detransitivized construction, are morphologically distinct from direct and indirect object pronouns. The frequencies of reflexive-marked constructions among all occurrences of the respective verbs vary significantly, confirming the initial hypothesis. For instance, about 84% of all occurrences of the verb *enfadar* ('to upset') in the corpus are marked by a reflexive pronoun, but only about 1% of all occurrences of *agradar* ('to please'). Nevertheless, all 15 verbs occur with reflexive marking in the corpus – albeit infrequently in some cases – and for all of them the corpus contained occurrences that constitute detransitivized psych alternation constructions in the sense of this dissertation, falsifying the hypothesis from the literature.

For a qualitative analysis of the detransitivized construction, the 100 most recent occurrences of both 3SG and 3PL forms of each verb in proximity of the reflexive pronominal clitic *se* were extracted from the corpus. This analysis step showed that while for some verbs, e.g. *sorprender* ('to surprise') and *fascinar* ('to fascinate'), the majority of the corpus hits were actual cases of the detransitivized construction, and mostly expressed the non-experiencer argument in an oblique form, like in example (1a). Other verbs, like *enfadar* ('to upset'), also show mostly clear occurrences of the detransitivized construction, but usually without expression of the non-experiencer argument, like in example (1b). And for a third group, e.g. *animar* ('to encourage'), most corpus hits did not actually encompass the detransitivized construction, but rather a proper reflexive construction, like in example (1c).

- (1) a. *Se sorprend-ía-n* al ver que era infalible.
REFL surprise-PST.IPFV-3PL to.DEF see.INF that be.PST.IPFV infallible
'They were surprised to see that he was infallible.'
- b. *Se enfad-ó.*
REFL upset-PST.PFV.3SG
'He/she got upset.'
- c. *Aním-e=se* y ofrezca a un animal un nuevo hogar
encourage-SBJV.3SG=REFL and offer.SBJV.3SG to INDF animal INDF new home
'Encourage yourself and offer an animal a new home.'

(Spanish < Romance < Indo-European, [stan1288](#); [Wiskandt, 2020](#): cf. from CORPES XXI, [Real Academia Española, 2020](#))

The analysis of the corpus occurrences of detransitivized constructions produces two tendencies: Object-experiencer verbs occurring more frequently in detransitivized constructions are more likely to have eventualities as non-experiencer arguments. By contrast, verbs occurring less frequently in detransitivized constructions are more likely to have animate non-experiencer arguments. The latter tendency is conform with similar findings in [Verhoeven \(2017\)](#) for German and [Pijpops & Speelman \(2017\)](#) for Dutch. Furthermore, the verbs in the sample that have a lower frequency of reflexive-marked constructions belong to the subclass of object-experiencer verbs which allow for agentive non-experiencer arguments within the categorization provided by [Marín \(2015: 22\)](#), with only one exception, *fascinar* ('to fascinate').

Cross-linguistic corpus study on Portuguese, Catalan and Romanian The second study² investigated object-experiencer verbs in three Romance languages: Catalan ([stan1289](#)), Brazilian Portuguese ([braz1246](#)), and Romanian ([roma1327](#)). A sample of four verbs per language was selected, covering four different basic emotions (cf. [Ekman, 1992](#)): anger (covered by verbs meaning 'disturb'), fear (covered by verbs meaning 'worry'), happiness (covered by verbs meaning 'amuse'), and sadness (covered by verbs meaning 'depress'). Cognates between the three languages were

²The study was presented as [Wiskandt et al. \(2023\)](#). Data are available upon request. A manuscript is, at the time of submission of this dissertation, currently in preparation.

chosen where possible. 200 corpus occurrences per verb (excluding false hits discarded before annotation), i.e. 2,400 occurrences in total, were annotated for quantitative analysis, aiming to find correlations among voice, word order, semantic types of the argument, and the expression of the non-experiencer argument in non-active voices.

Overall, the study shows that object-experiencer verbs with similar meanings behave similarly in corpus data. Distributions of annotation values are clearly higher between among denoting similar meanings than among verbs of the same language. And there are correlations across the three languages between semantics and the psych alternation: Verbs with a higher frequency of the detransitivized construction show a lower frequency of animate non-experiencer arguments and a higher frequency of eventualities as non-experiencer arguments. By contrast, verbs with a lower frequency of the detransitivized construction show a higher frequency of animate non-experiencer arguments. For the aggregate data of all verbs and languages, there is a positive correlation between animate non-experiencer arguments and active voice. These results confirm for Catalan, Portuguese, and Romanian what the first study described in this subsection observed for Spanish, and it is, again, perfectly compatible with the negative correlation between agentivity and the frequency of the detransitivized construction found by Verhoeven (2017) in German and by Pijpops & Speelman (2017) in Dutch.

10.1.2 Object-experiencer LVC patterns across Romance languages

In this subsection I report on a corpus study³ on object-experiencer LVCs in Romance languages that complements the study presented in Chapter 7. The language sample of this subsequent study includes Portuguese ([port1283](#)), Spanish ([stan1288](#)), Catalan ([stan1289](#)), French ([stan1290](#)), and Italian ([ital1282](#)). French and Italian were not included in the sample of Chapter 7. The ‘make N’ pattern has been discussed in the literature for both French (Staudinger, 2018; Acedo-Matellán & Pineda, 2019) and Italian (Pompei & Piunno, 2023). The ‘make N’ pattern has only been described for Italian (Pompei & Piunno, 2023), but not for French.

The compatibility of the ‘make N’ and ‘give N’ LVC patterns with a sample of ten emotion nouns per language is tested using the methodology presented in Chapter 7. Table 10.2 presents the noun sample. For Portuguese, Spanish, and Catalan, the selected nouns are a subsample of the sample in Chapter 7. Data were, again, extracted from the most recent available TenTen corpora (cf. Jakubíček et al., 2013) available for the respective languages through the interface of Sketch Engine (cf. Kilgariff et al., 2004, 2014).

Below I provide example pairs for the two LVC patterns in French (2) and Italian (3), the two languages not already included in Chapter 7. The ‘make N’ constructions are shown in (2a) and (3a), and the ‘give N’ constructions are shown in (2b) and (3b).

- (2) a. *Cela ne me fait pas peur.*
that NEG 1SG.OBJ make.3SG NEG fear
‘That does not scare me.’
b. *je lui avais donné de la jalousie*
1SG 3SG.DAT AUX.PST give.PTCP of DEF jealousy
‘I had made him jealous.’
(French < Romance < Indo-European, [stan1290](#); [frTenTen23](#) 1985437, 826957903)
- (3) a. *anche a me fanno rabbia queste critiche quando le leggo*
also to 1SG.OBJ make.3PL rage these criticism.PL when 3PL.ACC read.1SG
‘These criticisms make me angry too when I read them.’

³The study was presented as Wiskandt (2024).

- b. *passare da essere seguita giorno e notte al nulla mi dà*
 pass from be follow.PTCP day and night to.DEF nothing 1SG.OBJ give.3SG
tristezza.
 sadness
 ‘Going from being followed day and night to nothing makes me sad.’
 (Italian < Romance < Indo-European, [ital1282](#); [itTenTen20](#) 53268725, 440886120)

Table 10.4 presents the results, illustrated in analogy to the results in Chapter 7. The results for Portuguese, Spanish, and Catalan are equivalent to those in the preceding study.

At this point, I do not discuss the language-individual results for Portuguese, Spanish, and Catalan, as they were already presented in Chapter 7. But the results offer new insights on French and Italian. Italian behaves similarly to Catalan, with a mixed picture regarding the two LVC patterns, and several nouns that are attested in both patterns. French, however, differs significantly from all other languages of the sample. The patterns are generally used less, and bare nouns are dispreferred in LVC patterns. Instead, emotion nouns often appear with partitive articles, like *de la* in example (2b).

10.2 A bridging corpus study on German

This section builds an empirical bridge between the methods and results of Chapters 4, 6 and 7, and the theoretical proposal put forward in Chapter 9. I present the methodology and results of a follow-up corpus study on a sample of 10 German object-experiencer verbs, lexically corresponding emotion nouns, and LVCs incorporating those nouns.

10.2.1 Methodology

With the aim of showing how the extended alternation proposed in Chapter 9 ([Wiskandt, submitted](#)) plays out in data. For select lexical roots known to occur in object-experiencer predicates it explores which alternating constructions there are and shows differences between the usage of the constructions. To achieve that, the study extracted alternation sets from corpus data, with as many different construction patterns as possible. These alternation sets are categorized a posteriori based on which constructions are attested in the respective set. The direction of derivation between SV and emotion noun is also taken into account. As a sample for the corpus study, I selected 10 lexical roots referring to emotions for each of which a SV and a corresponding emotion noun is attested. Table 10.5 presents the sample.

Data were retrieved from the [deTenTen23](#) corpus, the most recent German corpus from the TenTen corpus family ([Jakubíček et al., 2013](#)), through the interface of Sketch Engine (cf. [Kilgarrieff et al., 2004, 2014](#)). Among the several available corpora of German that are sufficiently large and lemmatized, [deTenTen23](#) was selected because of the cross-linguistic comparability of TenTen corpora. Even though this study only analyzes German data, the option of extending the study to other languages is explicitly kept open. All examples in this dissertation that were extracted from [deTenTen23](#) are identified and traceable by their token number. Examples from [deTenTen23](#) used for illustration in Chapter 9 were extracted within the same round of data extraction.

Data collection was conducted in two steps: a first one for identifying the levels of each alternation set, i.e. which patterns are part of it, and a second one for exploring the properties of each construction pattern in more detail. For the first step I used general concordance queries. SVs and nouns were targeted separately, since they are, even though lexically corresponding, naturally tagged as separate lemmata in the corpus. The queries targeted all occurrences of the respective

#	emotion	Portuguese	Spanish	Catalan	French	Italian
1	‘fear’	<i>medo</i>	<i>miedo</i>	<i>por</i>	<i>peur</i>	<i>paura</i>
2	‘panic’	<i>pânico</i>	<i>pánico</i>	<i>pànic</i>	<i>panique</i>	<i>panico</i>
3	‘sadness’	<i>tristeza</i>	<i>tristeza</i>	<i>tristesa</i>	<i>tristesse</i>	<i>tristezza</i>
4	‘rage’	<i>raiva</i>	<i>rabia</i>	<i>ràbia</i>	<i>rage</i>	<i>rabbia</i>
5	‘boredom’	<i>tédio</i>	<i>aburrimiento</i>	<i>avorriment</i>	<i>ennui</i>	<i>noia</i>
6	‘envy’	<i>inveja</i>	<i>envidia</i>	<i>enveja</i>	<i>jalousie</i>	<i>invidia</i>
7	‘interest’	<i>interesse</i>	<i>interés</i>	<i>interès</i>	<i>intérêt</i>	<i>interesse</i>
8	‘joy’	<i>alegria</i>	<i>alegría</i>	<i>alegria</i>	<i>joie</i>	<i>gioia</i>
9	‘courage’	<i>coragem</i>	<i>coraje</i>	<i>coratge</i>	<i>courage</i>	<i>coraggio</i>
10	‘pride’	<i>orgulho</i>	<i>orgullo</i>	<i>orgull</i>	<i>fierté</i>	<i>orgoglio</i>

Table 10.2: Noun sample for the corpus study on Romance object-experiencer LVCs (Wiskandt, 2024)

#	emotion	Por		Spa		Cat		Fre		Ita	
		M	G	M	G	M	G	M	G	M	G
1	‘fear’	-	+	-	+	+	+	+	-	+	-
2	‘panic’	-	+	-	+	+	-	-	~	-	1
3	‘sadness’	-	+	-	+	+	1	-	~	+	+
4	‘rage’	-	+	1	+	+	+	~	~	+	+
5	‘boredom’	+	+	-	+	-	-	1	-	-	~
6	‘envy’	+	+	-	+	+	+	~	~	+	+
7	‘interest’	-	-	-	-	-	-	-	-	-	-
8	‘joy’	-	+	-	+	+	+	~	~	~	+
9	‘courage’	-	+	-	+	-	+	-	~	+	+
10	‘pride’	-	+	1	+	1	1	~	~	-	+

Legend

Por – Portuguese; Spa – Spanish; Cat – Catalan; Fre – French; Ita – Italian

M – ‘make’ pattern; G – ‘give’ pattern;

+ – LVC attested in corpus data; 1 – LVC attested as hapax;

~ – LVC dubitable; - – LVC not attested; colors for illustration

Table 10.4: Results of the corpus study on Romance object-experiencer LVCs (Wiskandt, 2024)

Root	Verb	Noun	Derivation	Meaning
ärger	<i>ärgern</i>	<i>Ärger</i>	$N \rightarrow V$	‘anger’
angst	<i>ängstigen</i>	<i>Angst</i>	$N \rightarrow V$	‘fear’
aufreg	<i>aufregen</i>	<i>Aufregung</i>	$V \rightarrow N$	‘excitement’
begeistert	<i>begeistern</i>	<i>Begeisterung</i>	$V \rightarrow N$	‘enthusiasm’
entsetzt	<i>entsetzen</i>	<i>Entsetzen</i>	$V \rightarrow N$	‘horror’
erstaunt	<i>erstaunen</i>	<i>Erstaunen</i>	$V \rightarrow N$	‘astonishment’
freu	<i>freuen</i>	<i>Freude</i>	$V \rightarrow N$	‘joy’
interess	<i>interessieren</i>	<i>Interesse</i>	$N \rightarrow V$	‘interest’
langweil	<i>langweilen</i>	<i>Langeweile</i>	$N \rightarrow V$	‘boredom’
verwirrt	<i>verwirren</i>	<i>Verwirrung</i>	$V \rightarrow N$	‘confusion’

Table 10.5: Sample of verbs and corresponding nouns for the corpus study on the extended alternation of object-experiencer predicates in German

SV, and all occurrences of the respective noun in a maximum distance of five words to one of the light verbs *machen* (‘make’), *geben* (‘give’), *bringen* (‘bring’), and *versetzen* (‘transfer’). A sample of 500 occurrences, generated by the random sampling function of Sketch Engine, was analyzed for each query.

For the second step I used word sketches as well as more specific concordance queries for a more detailed analysis of all relevant alternation levels identified in the first step. The Word Sketch function of Sketch Engine provides an overview of frequent collocates for a lemma or combination of lemmata, thereby supplementing the information available from the first step. Further concordance queries were then conducted for each alternation level identified in the first step or through a word sketch, for which, once again, a random sample of 500 occurrences was analyzed.

10.2.2 General results

This subsection presents the general results of the corpus study with respect to the alternation sets found for the queried SVs and nouns and the attested construction patterns in them. Here and henceforth within this section, all linguistic examples stem from the analyzed corpus data, and are labeled with their corpus token number, except for select examples from the literature provided for illustrative purposes. Besides the active voice construction (4a) and the detransitivized construction (4b) of the SV, several SVs also showed passive voice constructions (4c) and stative passive constructions (4d). Beyond the five object-experiencer LVC patterns listed in (9), shown in (4e), (4f), (4g), (4i), and (4j), an additional object-experiencer LVC pattern was found: *N bringen* (‘bring N’) + IO, as exemplified in (4h). These patterns are each attested for several roots within the sample, or have been described in previous literature as occurring with several emotion nouns. They will be treated in the subsequent analysis. Additional construction patterns were found that were only attested for one root. These will not be further analyzed in this paper, but shall be mentioned briefly: The pattern *in N halten* (lit. ‘hold in N’) was found with *erstaunt*: *in Erstaunen halten* with the meaning ‘keep so. astonished’ is another LVC pattern, and a pattern *N bereiten* (lit. ‘prepare N’) with *freu*: *Freude bereiten* with the meaning of ‘spark joy’. (4) lists all construction patterns that will be further treated in this corpus study.

- (4) a. *Dass die Einkaufspreise für Masken derzeit aufgrund der hohen Nachfrage*
that DEF wholesale prices for masks presently because of DEF high demand
explodiert sind, ärger-t die Apotheker in Westfalen-Lippe.
explode.PTCP be.3PL anger-3SG DEF pharmacists in Westphalia and Lippe
'The current explosion in wholesale prices for masks due to high demand is annoying
pharmacists in Westphalia and Lippe.'
(deTenTen23 2840645)
- b. *Junge Leute interessier-te-n sich sehr für die Fahrzeuge.*
young people interest-PST-3PL REFL very for DEF vehicle:PL
'Young people were very interested in the vehicles.'
(deTenTen23 8429808445)
- c. *Pokémon mit der Fähigkeit Tempomacher können nicht verwirr-t werd-en.*
Pokémon with DEF ability "Own Tempo" can.3PL NEG confuse-PTCP become-INF
'Pokémon with the Own Tempo ability cannot be confused.'
(deTenTen23 11451301796)
- d. *Ich bin ein wenig verwirr-t.*
1SG be.1SG a little confuse-PTCP
'I am a little confused.'
(deTenTen23 4361963058)
- e. *Das Kommunique des Politbüros [...] ha-t die westdeutsche und*
DEF communiqué DEF politburo.GEN have-3SG DEF West German and
Westberliner Presse vom Sonntag in völlige Verwirrung versetz-t.
West Berlin press of.DEF Sunday into total confusion transfer-PTCP
'The Politburo's communiqué left the West German and West Berlin press in complete
confusion on Sunday.'
(deTenTen23 15076736021)
- f. *Kevin Marx brach-te das Publikum mit seinen Songs in Begeisterung.*
PRN bring-PST DEF audience with 3SG.M.POSS songs into enthusiasm
'Kevin Marx got the audience hyped up with his songs.'
(deTenTen23 7196053361)
- g. *Was uns aber später wirklich zur Begeisterung bring-en sollte, war*
what 1PL.ACC but later really to.DEF enthusiasm bring-INF should be.PST
der Klappmechanismus
DEF folding mechanism
'But what really got us enthusiastic later on was the folding mechanism.'
(deTenTen23 7134048320)
- h. *Das aktive Lernen in der Gruppe und die glücklichen Momente in der Pause*
DEF active learn-INF in DEF group and DEF happy moments in DEF break
bring-en Schülerinnen und Schülern große Begeisterung.
bring-3PL students(F) and students(M) big enthusiasm
'Active learning in a group and happy moments during the break bring great enthusiasm
to students.'
(deTenTen23 1008212815)
- i. *Grossraumbüros mach-en vielen Leuten Angst: Gross, laut, unpersönlich.*
open-plan office.PL make-3PL many people fear large loud impersonal
'Open-plan offices scare many people: large, loud, impersonal.'
(deTenTen23 3861449147)
- j. *Das Unterrichten gib-t mir [...] Freude*
DEF teaching give-3SG 1SG.DAT joy
'Teaching gives me joy.'
(deTenTen23 11266443524)

Table 10.6 gives an overview of the results. For each root, the table shows which of the construction patterns are attested. The meaning is listed again for the sake of clarity. A construction was only counted as attested if at least one occurrence with an overt experiencer argument could be identified. Generally, the results reflect what is attested in the particular corpus data that were analyzed as specified in the previous subsection. When a construction is listed as not attested, this does not mean that it has to be ungrammatical for native speakers, only that it was not found in the data, although in most cases this will certainly coincide. The corpus study takes a qualitative instead of a quantitative perspective but, still, in a few cases quantitative observations could be made. When statements about frequency are made in the following (e.g. that a pattern is frequent or infrequent for a particular root) this happens on the basis of how many occurrences of it were found in the analyzed amount of corpus data, as described above. When e.g. only a small single-digit number of occurrences of a LVC, identified following the annotation criteria of Fleischhauer & Turus (2022), was found in the sampled 500 hits for the query that targeted the respective noun, this justifies the assumption that the construction is infrequent. When middle or high two-digit numbers of occurrences of a construction were found, this justifies the assumption that the construction is frequent. For cases that are neither clearly infrequent nor clearly frequent, no statement about frequency will be made.

Root	Meaning	ACT	REFL	PASS	ST	IV	IB	ZB	B	M	G
ärger	‘anger’	+	+	+	-	+	-	-	-	+	-
angst	‘fear’	+	+	+	-	+	-	-	-	+	-
aufreg	‘excitement’	+	+	-	+	+	+	-	-	-	-
begeistert	‘enthusiasm’	+	+	-	+	+	+	+	+	-	-
entsetzt	‘horror’	+	+	-	+	+	(+)	(+)	-	-	-
erstaunt	‘astonishment’	+	#	-	+	+	+	+	-	-	-
freu	‘joy’	+	+	-	-	+	-	-	+	+	+
interess	‘interest’	+	+	-	+	-	-	-	-	-	-
langweil	‘boredom’	+	+	(+)	+	(+)	-	-	-	-	-
verwirrt	‘confusion’	+	(#)	+	+	+	+	-	-	-	-

ACT = active voice construction; REFL = detransitivized construction with reflexive pronoun; PASS = passive voice construction; ST = stative passive construction; IV = *in N versetzen* LVC pattern; IB = *in N bringen* LVC pattern; ZB = *zu N bringen* LVC pattern; B = *N bringen* LVC pattern; M = *N machen* LVC pattern; G = *N geben* LVC pattern; + = attested; (+) = marginally attested; - = not attested; # = attested with diverging interpretation

Table 10.6: Overview of identified alternation sets

The results reveal several regularities. In case any object-experiencer LVCs are attested for a given root, the *in N versetzen* pattern is always among them. On the other hand, this most widely distributed pattern does not usually come alone: When *in N versetzen* is attested to a productive extent, at least one other LVC pattern was found, too. In one alternation set, for *interess*, no LVCs are attested, and in another, *langweil*, only marginal occurrences of *in N versetzen* were found, which aligns it more with *interess* than with any other alternation set in the sample. The *in/zu N bringen* patterns, on one hand, and the *machen/geben* patterns, on the other hand, are mutually exclusive: an alternation set can only contain one or both of the former, or one or both

of the latter, or neither. Another exclusion relation concerns stative passive constructions, which are mutually exclusive with *machen/geben* patterns, but productive in all alternation sets that do not form those patterns. These restrictions on construction patterns group the alternation sets in the sample into three types:

Type 1 — Alternation sets with *in N versetzen* and *in/zu N bringen* LVCs and stative passives: *aufreg, begeistert, entsetzt, erstaun, verwirr*

Type 2 — Alternation sets with *in N versetzen* and *N machen/geben* LVCs, but without stative passives: *ärger, angst, freu*

Type 3 — Alternation sets with stative passives, but without productive LVCs: *interess, langweil*

The three types of alternation sets will be further characterized and exemplified below. There is no apparent effect of emotion valence (cf. King, 2013), i.e. whether the emotion is associated with positive or negative affect. The direction of derivation between SV and emotion noun has no categorical correlation with the attested construction patterns. This can be deduced from a comparison between Table 10.6 and Table 10.5. Different combinations of attested constructions are listed in Table 10.6 for roots of both directions of derivation, $V \rightarrow N$ and $N \rightarrow V$, as they were listed in Table 10.5. But there are some regularities at least for the sample of this study. Crucially, the direction of derivation constrains the possibility of verbal prefixes appearing in the noun: If the noun is derived from the verb, the noun can adopt prefixes of the verb. If the verb is derived from the noun, the noun will not encompass verbal prefixes. For some of the verbs derived from nouns, there are also corresponding prefixed verbs, but for this study, simplex verbs were chosen wherever possible.

As a marginal phenomenon, a number of non-active voice constructions of object-experiencer LVC patterns were found. They comprise proper reflexive constructions (5a) as well as passive voice constructions (5b) of LVCs.

- (5) a. *Warum **sich** zusätzlichen **Ärger** mit der GEZ*
 why REFL additional annoyance with the public broadcasting fee collection
***mach-en**, wenn man ganz offiziell befreit werden kann?*
 make-INF when one entirely officially exempt.PTCP become.INF can.3SG
 ‘Why cause yourself additional annoyance with the GEZ when you can be totally
 officially exempted?’
 (deTenTen23 15741182737)
- b. *[...] und die globalen Märkte **wurde-n** vollends **in Verwirrung***
 and DEF global market.PL become.PST-3PL completely into confusion
versetz-t
 transfer-PTCP
 ‘And global markets were left in complete confusion.’
 (deTenTen23 1149578686)

With respect to which LVC pattern is available for which emotion noun, this study can largely confirm findings of Chapter 6 (Wiskandt & Turus, 2023), although the results differ slightly: According to 6, the *in N bringen* pattern should not occur with *Erstaunen* (‘astonishment’), but the data analyzed above confirm that it does. In the data of Chapter 8 (Wiskandt & Turus, 2025), *in N versetzen* LVCs showed a significant preference for animate non-experiencer arguments. The data analyzed in this section do not contradict those results.

10.2.3 Types of extended alternation sets

In the following, I take up the three types of extended alternation sets listed in the previous subsection, which are delimited based on which construction patterns are attested in the set. I define each type in more detail, briefly describe its properties based on the corpus data, and provide an example set.

Type 1 The first type is defined by the availability of *in/zu N bringen* LVCs and stative passives, and the absence of *N machen/geben* LVCs. Beyond these characteristics, the *in N versetzen* pattern is attested as well. Passive voice constructions and *N bringen* LVCs are each attested for one alternation set within the type; REFL-marked constructions are attested with the expected detransitivizing psych alternation function in three alternation sets, and with diverging interpretations in the other two. In the sample, the type is represented by the alternation sets of *aufreg*, *begeistert*, *entsetzt*, *erstaunt*, and *verwirrt*. For all of them, the direction of derivation is from verb to noun. This correlates with the fact that they all encompass verbal prefixes, which in turn influences aktionsart properties of the verbs.

A corpus example set for this type of alternation, with the root *begeistert*, is provided in (6). It shows the active voice construction in (6a), the detransitivized construction in (6b), the stative passive construction in (6c), the *in N versetzen* LVC pattern in (6d), the *in N bringen* LVC pattern in (6e), the *zu N bringen* LVC pattern in (6f), and the *N bringen* LVC pattern in (6g).

- (6) a. *Besonders **begeistert-te-n** mich die 3 ausgewachsenen Komodo-Warane,*
 especially enthuse-PST-3PL 1SG.ACC DEF three full-grown Komodo dragons
die in dem Zoo lebten.
 REL in DEF zoo live.PST.3SG
 ‘I was especially enthusiastic about the three full-grown Komodo dragons that lived in the zoo.’
 (deTenTen23 7227923285)
- b. *Manu erlernte das Piano, **begeistert-te sich** aber bald schon mehr fürs*
 PRN learnn.PST DEF piano enthuse-PST REFL but soon yet more for.DEF
Saxophon.
 saxophone
 ‘Manu learned to play the piano, but soon became more interested in the saxophone.’
 (deTenTen23 1085829326)
- c. *Ich hab [...] etwas kräftiger gewürzt und ich **bin** absolut*
 1SG have.1SG somewhat stronger spice.PTCP and 1SG be.1SG absolutely
***begeistert-t**.*
 enthuse-PTCP
 ‘I put in a little more spice and I am absolutely enthused.’
 (deTenTen23 229887259)
- d. *Mit ihrer Musik **versetz-te** Andrea Kumpe rund 100 Zuhörer **in***
 with 3SG.F.POSS music transfer-PST PRN about 100 listeners into
Begeisterung.
 enthusiasm
 ‘With her music, Andrea Kumpe filled an audience of around 100 with enthusiasm.’
 (deTenTen23 666658025)
- e. *Kevin Marx **brach-te** das Publikum mit seinen Songs **in Begeisterung.***
 PRN bring-PST DEF audience with 3SG.M.POSS songs into enthusiasm
 ‘Kevin Marx got the audience hyped up with his songs.’
 (deTenTen23 7196053361)

- f. *Was uns aber später wirklich zur Begeisterung bring-en sollte, war*
 what 1PL.ACC but later really to.DEF enthusiasm bring-INF should be.PST
der Klappmechanismus
 DEF folding mechanism
 ‘But what really got us enthusiastic later on was the folding mechanism.’
 (deTenTen23 7134048320)
- g. *Das aktive Lernen in der Gruppe und die glücklichen Momente in der Pause*
 DEF active learn.INF in DEF group and DEF happy moments in DEF break
bring-en Schülerinnen und Schülern große Begeisterung.
 bring-3PL students(F) and students(M) big enthusiasm
 ‘Active learning in a group and happy moments during the break bring great enthusiasm to students.’
 (deTenTen23 1008212815)

Type 2 The second type is defined by the availability of *N machen/geben* LVCs, and the absence of *in/zu N bringen* LVCs and stative passives. Beyond these characteristics, the REFL-marked detransitivized construction and the *in N versetzen* pattern are always attested. Passive voice constructions and *N bringen* LVCs can, again, be available, but do not have to be. In the sample, the type is represented by the alternation sets of *ärger*, *angst*, and *freu*. The direction of derivation between verb and noun is not uniform in this type. They all come without verbal prefixes. A corpus example set for this type of alternation, with the root *ärger*, is provided in (7). It shows the active voice construction in (7a), the detransitivized construction in (7b), the passive voice construction in (7c), the *in N versetzen* LVC pattern in (7d), and the *N machen* LVC pattern in (7e).

- (7) a. *Dass die Einkaufspreise für Masken derzeit aufgrund der hohen Nachfrage*
 that DEF wholesale prices for masks presently because of DEF high demand
explodiert sind, ärger-t die Apotheker in Westfalen-Lippe.
 explode.PTCP be.3PL anger-3SG DEF pharmacists in Westphalia and Lippe
 ‘The current explosion in wholesale prices for masks due to high demand is annoying pharmacists in Westphalia and Lippe.’
 (deTenTen23 2840645)
- b. *Auf Twitter ärger-te-n sich einige Nutzer über einzelne Auftritte in der*
 on Twitter anger-PST-3PL REFL some users about individual appearances in DEF
Sendung.
 broadcast
 ‘On Twitter, some users were annoyed about certain appearances on the show.’
 (deTenTen23 442662)
- c. *Mobbing ist es, wenn das Opfer richtig fies ge-ärger-t und*
 bullying be.3SG 3SG.N when DEF victim truly nasty PTCP-anger-PTCP and
beleidigt wird und das immer wieder, jeden Tag.
 insult.PTCP become.3SG and DEF always again every day
 ‘Bullying is when the victim is annoyed and insulted in a really nasty way, over and over again, every day.’
 (deTenTen23 17540868975)
- d. *Während er jung war, war Channing Tatum ein wahres*
 while 3SG.M young be.PST be.PST PRN INDF true
Energiebündel, welches die Eltern oft in Ärger versetz-t ha-t.
 bundle of energy REL DEF parents often into anger transfer-PTCP have-3SG
 ‘When he was young, Channing Tatum was a real bundle of energy who often made his parents angry.’
 (deTenTen23 14143946885)

- e. *warum soll ich meinem Boss solchen Ärger mach-en, er soll
 why should 1SG 1SG.POSS.DAT boss such anger make-INF 3SG.M should
 zufrieden sein, ich soll auch zufrieden sein
 content be-INF 1SG should also content be-INF
 ‘Why should I cause my boss so much annoyance, he should be content, I should be
 content too.’*

(deTenTen23 17537832060)

Type 3 The third type is defined by the absence of productive LVC patterns.⁴ The REFL-marked detransitivized construction and stative passives are available. Passive voice constructions are also just marginally attested. In the sample, the type is represented by the alternation sets of *interess* and *langweil*. The direction of derivation is from noun to verb in both cases. Consequently, they do not encompass verbal prefixes, although from an etymological perspective, both are complex roots. They do not differ from those of Type 2 in terms of aspectual properties, but it has been argued that they are semantically incompatible with causation scenarios (Wiskandt & Turus, 2023: 159). A corpus example set for this type of alternation, with the root *interess*, is provided in (8), with the active voice construction in (8a), the detransitivized construction in (8b), and the stative passive construction in (8c).

- (8) a. *Ich dachte mir, dass Sie dieses Thema sicherlich interessier-t
 1SG think.PST.1SG 1SG.DAT that 2.HON DEM topic certainly interest-3SG
 ‘I thought that you are certainly interested in this topic.’*

(deTenTen23 7778347427)

- b. *Junge Leute interessier-te-n sich sehr für die Fahrzeuge.
 young people interest-PST-3PL REFL very for DEF vehicle:PL
 ‘Young people were very interested in the vehicles.’*

(deTenTen23 8429808445)

- c. *Zu der Zeit war sie schon an der Fotografie interessier-t.
 at DEF time be.PST 3SG.F already at DEF photography interest-PTCP
 ‘At that time she was already interested in photography.’*

(deTenTen23 5457248284)

Alternation sets without detransitivized construction For two alternation sets of the sample, *erstaun* and *verwirr*, the REFL-marked detransitivized construction was not found in the corpus data. In both cases, constructions marked by a reflexive pronoun were found, but with other interpretations. Examples will be provided in the next subsection. Both alternation sets without the detransitivized construction are categorized into Type 1 based on their compatibility with LVC patterns. Whether this is systematic or just coincidence can not be determined conclusively based on the present sample.

10.2.4 Observations on construction patterns

This subsection is dedicated to a few observations on particular construction patterns.

Reflexive-marked constructions beyond the detransitivized construction Beyond the detransitivizing construction regularly expected in the psych alternation, the data also show REFL-marked constructions that do not have the detransitivization function as expected. The most

⁴For *langweil*, very few instances of the *in N versetzen* pattern were found in the corpus. But the frequency of the pattern with this root is so low, both in absolute numbers and compared to the other roots, that categorizing *langweil* into this type is justified.

prominent diverging function of the REFL marking strategy is that of a speech act marker. In those cases, the construction is used to refer to a speech act associated with the emotion denoted by the root. It is the only attested use of the REFL construction with *erstaun* (9a), while in other alternation sets like *ärger*, the speech-act REFL use as in (9b) coexists with the regular detransitivized construction.

- (9) a. *"Wir müssen sparen und schließen Jugendeinrichtungen, aber für so was haben wir Geld", erstaun-te sich die FDP-Abgeordnete Angela Freimuth*
 1PL must save and close.1PL youth.institutions but for so what have.1PL
 1PL money astonish-PST REFL DEF FDP.representative PRN
 "We have to save money and close youth centers, but we have money for something like this," the FDP representative Angela Freimuth said in astonishment.
 (deTenTen23 564053674)
- b. *"Das ist eine Irrsinnsforderung", ärger-t sich Grünert.*
 DEF be.3SG INDF insane demand anger-3SG REFL PRN
 "This is an insane demand", Grünert said angrily.
 (deTenTen23 4651411)

Proper reflexive constructions, i.e. REFL-marked constructions that are semantically reflexive, are also attested in the data. For *verwirr*, as in example (10), it is the only attested use of the REFL marking strategy.

- (10) *Damit verwirr-te er sich und seine zwei Gegenspieler so sehr, dass KSC-Spieler Jakob Fischer der Ball vor die Füße fiel*
 thereby confuse-PST 3SG.M REFL and 3SG.M.POSS two opposing.players so very that
 KSC player PRN DEF ball before DEF foot.PL fall.PST
 'In doing so, he confused himself and his two opponents so much that the ball fell at the feet of KSC player Jakob Fischer.'
 (deTenTen23 2790034125)

The *in N versetzen* pattern The *in N versetzen* LVC pattern is the most widely distributed LVC pattern in the sample, and the second-most widely distributed construction pattern in the sample in general after only the active voice construction of the SV. If any LVC pattern is available for a root, then at least this one; which confirms the respective finding of Wiskandt & Turus (2023). This motivates the assumption that it is the least specialized of all object-experiencer LVC patterns. While it is very frequent with some nouns of the sample, e.g. *Erstaunen* ('astonishment'), it is rather infrequent with some other nouns, e.g. *Ärger* ('anger') and *Freude* ('joy'). It is frequently used with attributive modifiers on the emotion noun, as in (11a). Some nouns have a particular proclivity to attributive modification in the pattern, e.g. *Entsetzen*. Looking into properties of the arguments, the pattern is particularly common with collective experiencers like audiences, as in (11b). High intensity of the denoted emotion also seems to be loosely associated with the pattern, particularly with intensifying modifiers like in (11a).

- (11) a. *Das Kommuniqué des Politbüros [...] hat die westdeutsche und Westberliner Presse vom Sonntag in völlige Verwirrung versetzt.*
 DEF communiqué DEF politburo.GEN have.3SG DEF West German and
 West Berlin press of.DEF into total confusion transfer-PTCP
 'The Politburo's communiqué left the West German and West Berlin press in complete confusion on Sunday.'
 (deTenTen23 15076736021)

- b. *Der Erste Solotänzer des Wiener Staatsballetts Denys Cherevichko und sein Kollege Solotänzer Mihail Sosnovski werd-en die Gäste mit ihren Sprüngen in Erstaunen versetz-en.*
 DEF first solo.dancer DEF.GEN Vienna State Ballet PRN and
 3SG.M.POSS colleague solo.dancer PRN will-3PL DEF guest.PL with
 3PL.POSS leap.PL into astonishment transfer-INF
 ‘The principal dancer of the Vienna State Ballet, Denys Cherevichko, and his colleague, soloist Mihail Sosnovski, will amaze the guests with their leaps.’
 (deTenTen23 1933472305)

All other LVC patterns are much more restricted, any are only attested in a maximum of five alternation sets in the sample.

The *in/zu N bringen* patterns The *in N bringen* pattern and the *zu N bringen* pattern require the availability of the *in N versetzen* pattern, and are mutually exclusive with the *N machen/geben* patterns. When *zu N bringen* is available in an alternation set, then *in N bringen* is available as well. But there are two alternation sets in the sample that only comprise the latter pattern, *aufreg* and *verwirr*.

The *N bringen* pattern The *N bringen* pattern was not explicitly described as an object-experiencer LVC pattern in previous literature, and thus not specifically targeted in the corpus study, but was found in the first step of the corpus queries and therefore included in the investigation. It behaves like the other LVC pattern in that it requires the availability of the *in N versetzen* pattern in any alternation set where it occurs. Superficially, it seems to be very productive, as there are apparent corpus occurrences for almost all roots of the sample. However, for several of them (*Aufregung*, *Begeisterung*, *Langeweile*) *N bringen* was attested only as an intransitive construction without an experiencer object. When no occurrence with an overt experiencer object was found, I did not classify the pattern as attested, since there is no evidence that it is used as an experiencer predicate pattern.

The *N machen/geben* patterns The *N machen* and *N geben* LVC patterns again require the cooccurrence of the *in N versetzen* pattern, and they are mutually exclusive with the *in/zu N bringen* patterns and with the stative passive construction of the SV. The *N geben* pattern is only attested in one alternation set of the sample, *freu*. *N machen* is more productive. With some emotion nouns, it can produce constructions that have a non-emotional reading. This is the case, for example, with the noun *Ärger* (‘anger’). Where the pattern is not used to refer to the causation of an emotional state, but rather of an activity or circumstance that is conventionally associated with the emotion.

Further complex predicate patterns The corpus queries targeting the nouns of the sample, designed to identify the object-experiencer LVC pattern, also revealed subject-experiencer LVCs with almost all nouns. Subject-experiencer LVC patterns found frequently in the data are, for example, *in N geraten* (‘get into N’) and *N haben* (‘have N’). An analysis of these constructions goes beyond the scope of this dissertation. The same holds for further complex predicate patterns formed with adjectives that lexically correspond to the verbs and nouns of the sample, or constructions incorporating one of the nouns and a heavy verb. The above-described LVC patterns can also serve as a base for the derivation of more complex patterns. For example, the *in N versetzen* pattern was found in an extended version as *in einen Zustand von N versetzen* (lit. ‘transfer into a state

of N’). This pattern was found e.g. with the noun *Langeweile* (‘boredom’) in the construction *sich in einen Zustand von Langeweile versetzen*, used with the meaning ‘to get oneself into a state of boredom’.

10.2.5 Conclusion

The key results of the corpus study can be summarized as follows: The study shows that the coexistence of object-experiencer SVs with several lexically corresponding LVCs is systematic, as it is attested in data, with similar behavior, across a sample of verbs. This finding extends the results of Chapter 8, which only showed this for one LVC pattern, and confirms the assumptions of 9. The possibility to form object-experiencer LVCs corresponding to a SV is not constrained by the direction of derivation between the SV and the emotion noun in the LVC. The study clarifies that the noun can be derived from the verb, or the other way around. Furthermore, the study shows for its sample which LVC patterns are available for which corresponding SV, and establishes groups of verbs defined by similar inventories of available LVC patterns. Through all these results, the corpus study puts the extended alternation analysis of Chapter 9 through a succesful empirical test.

Chapter 11

Answers and outlook

In this penultimate chapter, I summarize the answers to the initial research questions that this dissertation provides, define open questions, and draw attention to possible subsequent research.

11.1 Questions and answers about alternations of object-experiencer predicates

First, let us take stock of the research questions that have been answered as well as those that remain open.

11.1.1 Answers to research questions

In the following, I will address the four central research questions of this dissertation and their subquestions one by one, providing answers based on the findings of the six research papers in Part II and the additional insights from Chapter 10.

RQ 1 What is the grammatical function of the detransitivized construction in the psych alternation?

1.1 Is there a systematic semantic function of the detransitivized construction in the German psych alternation?

Yes. The detransitivized construction in the German psych alternation produces two diatheses, distinguished by whether or not the stimulus role is expressed in a prepositional phrase. Both diatheses have in common that the semantic role of causer is omitted. This motivates the assumption that the detransitivized construction cannot carry a causative meaning. (Chapter 9)

The role of the detransitivized construction is systematic and occurs across many alternation sets. (Chapter 4; Section 10.2)

1.2 Which voice function can the psych alternation in German be mapped to?

As an abstraction over the diatheses that the detransitivized construction produces, which both exclude the expression of a causer, the detransitivized construction in the psych alternation in German can be mapped to an anticausative voice function. (Chapter 9)

- 1.3** Are these functions a cross-linguistic property of the detransitivized construction in the psych alternation?

The marking of the detransitivized construction is syncretic with anticausative marking across languages. This suggests that the association of the detransitivized construction in the psych alternation with an anticausative voice function is not a language-specific property of German, but a cross-linguistic tendency. Based on the analyzed sample, the detransitivizing psych alternation could be classified as a subtype of anticausativization. (Chapter 5).

Correlations between types and marking of arguments and the frequency of the detransitivized construction in Romance corpus data suggest that the semantic function of the construction could be similar to German. (Subsection 10.1.1)

- RQ 2** What is the grammatical function of object-experiencer light verb constructions?

- 2.1** Is there a systematic semantic function of German object-experiencer LVC patterns in general?

Yes. German object-experiencer LVCs are causative predicates. They can be used to enforce the interpretation that an emotional state or event was caused by an external causer. They are incompatible with non-culminating interpretations. The causative meaning is contributed by the LVC patterns. It is systematic across many different object-experiencer LVCs. (Chapters 6, 8, 9).

Causative object-experiencer LVC patterns coexist systematically with lexically corresponding object-experiencer verbs. (Chapters 8, 9; Section 10.2)

The LVC patterns can also be used to coordinate two or more emotions in a single object-experiencer predicate, which is not equally possible with object-experiencer verbs. (Chapters 8, 9)

- 2.2** If there is such a function, are there functional differences between the several object-experiencer LVC patterns?

Yes. The LVC patterns come with different requirements with respect to nouns that can appear in them. (Chapters 6, 7; Section 10.2)

The LVC patterns differ in aspectual properties. (Chapters 6, 9)

The relations between the different object-experiencer LVC patterns constitute epitheses. (Chapter 9)

- 2.3** Are these functions a cross-linguistic property of object-experiencer LVCs?

The functions of object-experiencer LVC patterns of forming causative predicates, and to coordinate two or more emotions within a single object-experiencer predicate, are similar across Germanic and Romance languages. (Chapter 7)

- RQ 3** Which lexical restrictions operate on the psych alternation and on object-experiencer light verb constructions?

- 3.1** Are there systematic lexical restrictions on the psych alternation in German?

Yes. Lexical restrictions are clearly visible, and groups of verbs can be identified that are incompatible with the detransitivized construction. (Chapter 4)

- 3.2** If there are, which factors condition these lexical restrictions on the psych alternation in German?

If an object-experiencer verb entails a high degree of affectedness of the experiencer, it cannot form the detransitivized construction. Furthermore, transparency of metaphors in object-experiencer verbs as well as certain verbal prefixes and particles block the formation of the detransitivized construction. (Chapter 4)

- 3.3** Are there systematic lexical restrictions on object-experiencer LVC patterns in German?

Yes. German emotion nouns differ with respect to whether they can be used in object-experiencer LVC patterns. Those that can differ regarding the exact patterns they appear in. Emotion nouns can be grouped according to the LVC patterns they are attested in. (Chapters 6, 7; Section 10.2)

- 3.4** If there are, which factors condition these lexical restrictions on object-experiencer LVC patterns in German?

Nouns that denote emotions that are semantically incompatible with causative scenarios, or that do not include a result state in their meaning, do not appear in object-experiencer LVCs. Compound emotion nouns that already encompass the stimulus of the emotion within the noun also cannot appear in the LVCs. For emotion nouns that are not generally excluded, the event structure of the emotion events that they denote influences their compatibility with different patterns. Emotion valence also has a small effect. (Chapters 6, 7)

The availability of LVC patterns for an emotion noun partly correlates with the availability of the detransitivized construction for the corresponding synthetic verb. (Section 10.2)

- 3.5** Do these lexical restrictions follow cross-linguistic regularities?

For a few emotion concepts, data show cross-linguistic parallels in the availability of LVC patterns in Germanic and Romance languages. But most restrictions are language-specific. There is no significant difference between the Germanic and Romance genera. (Chapter 7; Subsection 10.1.2)

The lexical restrictions on the psych alternation in German are not mirrored in Romance languages. But Romance languages show significant differences in the frequency of the detransitivized construction between verbs, which could be related to the categorical restrictions in German. (Subsection 10.1.1)

- RQ 4** How can the relation between object-experiencer verbs and lexically corresponding light verb constructions be characterized?

- 4.1** Is there a systematic alternation between object-experiencer verbs and lexically corresponding LVCs in German?

Yes. Object-experiencer verbs and lexically corresponding LVCs are not synonymous. They are in a systematic relation across many different pairs of verbs and emotion nouns, which is more than just lexical competition. (Chapters 8, 9; Section 10.2)

The relation between object-experiencer verbs and corresponding LVCs function as an alternation. (Chapter 9).

- 4.2** If there is, what is the function of the LVCs in relation to the corresponding verbs?

Object-experiencer LVCs function as diatheses of corresponding synthetic verbs. The LVC patterns as markers of diatheses thus play the role of voice marking. The diatheses that the LVC patterns produce have in common that a causer role is expressed as

the subject. The LVC patterns mark the promotion of the causer to subject, acting as causative voice markers. The resulting object-experiencer LVCs constitute non-prototypical uses of causative marking. (Chapter 9)

The LVC patterns have semantic properties characteristic of causative predicates. These properties explain probabilistic differences between LVCs and corresponding verbs regarding the semantic types of their arguments. (Chapter 8)

4.3 In how far do object-experiencer LVC patterns complement the psych alternation?

The detransitivized construction of the psych alternation and the LVC patterns corresponding to object-experiencer verbs have converse functions in relation to the active voice construction for the verb. The former excludes the expression of a causer, acting as anticausative marking; the latter enforces the expression of a causer, acting as causative marking. (Chapter 9).

The detransitivized construction and the LVC patterns coexist systematically in complex alternation sets. (Section 10.2)

11.1.2 Research questions remaining open

Even though, in the previous subsection, I was able to list answers to many subquestions, some questions within the scope of the four central research questions remain unanswered. In what follows, I will summarize these open issues, ordered by the central research question that they have the closest connection to.

RQ 1 What is the grammatical function of the detransitivized construction in the psych alternation?

The semantics of the detransitivized construction beyond the features related to its anticausative nature deserves further investigation. Its aspectual properties, while heavily discussed for Spanish, have not yet been conclusively determined for German. Furthermore, the cross-linguistic validity of such semantic dimensions of the detransitivized construction is still unclear.

Drawing a connection between the theoretical proposal presented in Chapter 9 for German and the insights presented for Romance languages in Subsection 10.1.1, motivates the assumption that semantic parallels between the languages explain the quantitative tendencies in Romance languages. But whether the quantitative results are actually a reflex of semantic properties of the constructions in Romance equivalent to those in German could not be clarified yet.

From a typological perspective, a logical follow-up question to the results of Chapter 5 is whether voice syncretism patterns of markers in transitivizing and undirected psych alternation types mirror the results for the detransitivizing psych alternation types. Do these types also exhibit the regular syncretism with causative alternation marking?

RQ 2 What is the grammatical function of object-experiencer light verb constructions?

The aspectual differences between the LVC patterns, which were hypothesized and motivated in the studies, still need further clarification. For the analysis of the relation between different LVC patterns as epithesis in Chapter 9, it was not necessary to specify the exact difference in meaning between them. But in order to fully understand their interplay, the semantics of the patterns need to be tested specifically. Can the aspectual differences proposed in Chapter 6 be upheld?

The question as to which light verbs and LVC patterns are used for complex object-experiencer predicates, was studied in Germanic and Romance languages in Chapter 7. But we still do not know if the specific light verbs and patterns are just a language- or genus-specific property of the languages of the sample, or if genetically more diverse languages have similar inventories.

RQ 3 Which lexical restrictions operate on the psych alternation and on object-experiencer light verb constructions?

Most probably, there are factors that condition the lexical restrictions on the psych alternation in German that go beyond the proposed semantic effects described in Chapters 4 and 9. Following the association of the detransitivizing psych alternation to anticausativization, the question arises whether the detransitivized construction underlies semantic constraints similar to those of conventional anticausatives.

The set of semantic parameters influencing the compatibility of emotion nouns with LVC patterns is also still underexplored. Some parameters seem to play a role for lexical restrictions on both the psych alternation and object-experiencer LVC patterns in German. For instance, the presence of a result state is relevant for compatibility on nouns in LVC patterns, but also plays a role in the affectedness parameter that influences whether object-experiencer verbs can detransitivize. It is yet unclear if the overlap between the factors conditioning lexical restrictions in both domains is coincidental or rather systematic.

In general, the results of the studies raise the question as to whether the different types of lexical restrictions are language-specific or whether at least some of them are independent from the individual language.

RQ 4 How can the relation between object-experiencer verbs and lexically corresponding light verb constructions be characterized?

The corpus study in Section 10.2 showed which types of extended alternation sets exist in German corpus data. It described some observations on the frequency of particular constructions and on argument preferences of some construction patterns. The study did, however, not use quantitative methodology. The frequency of construction patterns within and across extended alternation sets, as well as parameters that predict it, are yet to be investigated.

The diathesis-based analysis of the extended alternation of object-experiencer predicates in Chapter 9 was developed for German. Presumably, it can be applied to other Germanic languages, and possibly Romance and Slavic languages as well. But this needs to be verified. Applicability of the analysis beyond closely related languages was not foreseen by the proposal, but could still be explored. Within such an extension of the analysis, the question arises whether LVC patterns like those studied in this dissertation show similarities to canonical causative markers across languages.

Lastly, the study in Chapter 9 presented itself as a case study for the general debate on the relation between LVCs and lexically corresponding synthetic verbs. The proposal developed in the chapter can only fulfil its role as a case study if it is later applied to verb-LVC relations beyond the realm of object-experiencer predicates.

11.2 Opportunities for subsequent studies

Motivated by the open questions summarized in Subsection 11.1.2, I address future research prospects connected to the methods and results of this dissertation.

11.2.1 Recent related studies

As a first outlook beyond the results of this dissertation, I discuss four recent cross-linguistic studies on the psych alternation with a close connection to my work, and how their insights can be beneficial to the answers and questions presented above. As explained in Section 3.1, this dissertation did not target research questions that need experimental methodology. Instead, three experimental studies on the psych alternation in Romance languages, which share the understanding of the psych alternation that underlies this dissertation, demonstrate possible methodologies.

Grätz et al. (2026) present a comparative acceptability study on the psych alternation in Spanish and Catalan, conducted with speakers on the island of Mallorca. Participants provided acceptability judgments on a seven-point scale for test sentences that included either an active voice construction or a detransitivized construction of an object-experiencer verb. Besides testing different verbs, the experiment also manipulated overt realization and animacy of the non-experiencer argument. The results show similar and generally very high acceptability of all tested conditions, which demonstrates how acceptability studies have difficulties with detecting subtle functional distinctions between constructions, as we find them in the psych alternation, but also in object-experiencer LVCs.

The study reported in Blanchard-Rooney (2026) was also conducted with Spanish and Catalan speakers on Mallorca. In contrast to Grätz et al. (2026), it did not test the acceptability of linguistic stimuli, but instead elicited descriptions of visual stimuli associated with an object-experiencer verb. The experiment was designed to test the choice mainly between the two construction patterns of the psych alternation, i.e. the active voice and the detransitivized construction. But other construction patterns, such as stative passives, were also chosen by participants instead. The results show that the choice of voice construction, as well as the morphosyntactic type of the non-experiencer argument (e.g. as a nominal phrase or subject sentence), depend on the verb, while the general probability of the choice of the active voice vs. the detransitivized construction is also significantly different between the two languages. Furthermore, there is significant co-variation of the voice construction not only with the morphosyntactic type of the non-experiencer argument, but also with person of the non-experiencer argument, and tense. A study with a similar methodology could complement the studies presented in this dissertation, particularly regarding speakers' choice of construction within the extended alternation. However, the design of the experiment becomes more challenging by targeting both object-experiencer verbs and corresponding LVCs. Providing the verb together with the visual stimulus, as done in Blanchard-Rooney's study, would severely bias the participant against choosing the LVC options. But if a solution avoiding such a bias can be found, using this method for the extended alternation of object-experiencer predicates would seem very promising.

Blanchard-Rooney (2025) extends the cross-Romance experimental view on the psych alternation by presenting an online elicitation experiment conducted with speakers of six Romance languages, five of which were taken into account for the statistical analysis. The methodology resembles that of Blanchard-Rooney (2026). It is based on visual stimuli presented together with an object-experiencer verb, letting the participant choose the construction pattern in the sentence they produce. In this study, Blanchard-Rooney investigates a possible effect of emotional intensity

on the psych alternation: A more intensive emotion should, as per his hypothesis, raise the probability of speakers choosing the active voice construction. This hypothesis can be linked to three parameters that play a role in the results of this dissertation: First, the presence vs. absence of a causer that Chapter 9 (Wiskandt, submitted) defines as properties of the different construction patterns in the extended alternation; second, the obligatory result state that Chapters 6 (Wiskandt & Turus, 2023) and 8 (Wiskandt & Turus, 2025) describe as a property of object-experiencer LVC patterns; and third, the parameter of affectedness that conditions whether the detransitivized construction is available for object-experiencer verbs in German, as analyzed in Chapter 4 (Wiskandt, 2021a). In Blanchard-Rooney’s experiment, the parameter of emotional intensity is manipulated through facial expressions in the visual stimuli.

The results are, unfortunately, inconclusive with respect to the effect of emotional intensity. Other parameters seem to supersede it, e.g. the type of emotion denoted by the verb, as well as general preferences that individual languages and participants have regarding the choice of voice construction. Blanchard-Rooney’s work nevertheless provides another promising test case for experimental methodology, which could be used in future studies on presumed semantic differences between the construction patterns in the extended alternation of object-experiencer predicates across languages that cannot be determined in corpus data.

For a further typological perspective, Schamne (2025) complements the study presented in Chapter 5 (Wiskandt, 2026), using a similar typological methodology based on patterns of voice syncretism (cf. Bahrt, 2021). While Wiskandt (2026) studies the detransitivizing psych alternation type, Schamne (2025) studies the transitivity type (cf. Rott et al., 2024 for a characterization of the types). Another difference lies in the starting point of the study: Wiskandt (2026) chooses the typological method in order to solve a theoretical problem in the analysis of Romance and Germanic languages. Schamne (2025), however, takes a typological perspective right from the beginning.

The study is based on a sample of eleven languages from different language families across all macroareas, for which it demonstrates that marking of transitivity psych alternations is regularly syncretic with causative voice marking. If there is any clear voice syncretism, it always involves the causative, as is the case in seven languages of the sample. In the remaining four languages, there were also indications towards a syncretism with causative voice, but the data were insufficient to resolve all doubts. This is the mirror image of the results of Wiskandt (2026), in which detransitivizing psych alternation marking is always syncretic with the anticausative. A difference between the findings for the transitivity and detransitivizing psych alternation marking concerns the complexity of the attended syncretisms: While complex syncretisms, i.e. syncretisms with two or more other voice functions, are frequent with the detransitivizing type, almost all syncretisms in the transitivity type are simplex syncretisms with only the causative voice.

As a next step, the methodologies of Wiskandt (2026) and Schamne (2025) lend themselves to a possible larger study combining the perspectives of both studies. The research questions of the two papers could be investigated separately, although, conceptually, they are not really separate: They pursue the joint question as to which voice functions the marking of the psych alternation syncretizes with, and whether the psych alternation can indeed be classified as a subtype of the causative alternation from a typological perspective, independently of the directionality of the psych alternation (cf. Rott et al., 2024) in a respective language. Such a consolidating study should be based on a larger as well as genetically and areally more balanced sample.

11.2.2 Suggestions for follow-up studies

As adequate next steps towards answering the questions that remained open, I propose a selection of studies that could build on the results of this dissertation.

Quantitative corpus study on the extended alternation First, I propose a quantitative corpus study on the extended alternation. The aim of this study is to show statistical tendencies regarding the use of the constructions in the extended alternation of object-experiencer predicates. It can build on the results of the additional corpus study presented in Section 10.2. While the nature of that study was qualitative, it also produced several quantitative observations on the usage of construction patterns in the extended alternation that can serve as hypotheses for an original quantitative study. For instance, the observations on the types of non-experiencer arguments typically appearing with the construction patterns need quantitative corroboration, and a subsequent comparison to the statistical results of Chapter 8 (Wiskandt & Turus, 2025).

Experimental studies on semantics of extended alternation constructions Second, I propose an experimental study on semantic reflexes of the anticausative and causative functions of the detransitivized construction and light verb constructions, respectively. Based on cross-linguistically attested semantic properties of causatives and anticausatives described in the literature, such a study should further corroborate my diathesis-based theoretical analysis in Chapter 9 and the findings of Chapter 5, and provide additional confirmation for the results of Chapter 8.

Cross-linguistic application of the diathesis alternation analysis The diathesis alternation approach developed for German could be applied to further languages in a comparative study, potentially starting with a Germanic-Romance sample as used in Chapter 7. The design of the approach, as well as the methodology of the supplementary corpus study in Section 10.2, is already laid out in a way that facilitates transfer to other object languages. TenTen corpora, which are designed to be comparable (cf. Jakubíček et al., 2013), are available for more than 40 languages, and while not all of them have the necessary prerequisites for an extended psych alternation as proposed in this paper, there are certainly enough candidates for a broader cross-linguistic study based on the corpus family. Optionally, the analysis could be extended to include subject-experiencer predicates as well, or even transferred to other lexical domains – the proposal to analyze LVCs as diatheses of lexically corresponding verbs is not naturally limited to the psych domain.

Voice syncretism in psych alternation markers across valence orientations As I mentioned already in the previous subsection, combining the perspectives of Chapter 5 and of Schamne (2025) seems promising as a next step in typological research on psych alternation marking. A further extension could also include marking of undirected psych alternation pairs and its possible voice syncretisms.

Typological study on complex experiencer predicates The typological method based on voice syncretism patterns, presented in Chapter 5, could be used in an adapted form for a typological study on patterns used to form experiencer LVCs. The study would investigate other functions of the respective LVC patterns

Voice marker stacking As a side finding, the studies within this dissertation discovered several cases of of experiencer predicates with voice marker stacking i.e. the marking of two or more voice functions on the same predicate (cf. e.g. [Creissels, 2024: 349–355](#); [Cysouw, 2023: 37–40](#)). For example, Chapter 5 presents an example with stacked voice suffixes on an experiencer verb in Finnish. Chapter 9 shows examples of non-active voice constructions of object-experiencer LVCs. Under the analysis of the LVC patterns as causative marking, this also constitutes voice marker stacking. I propose a typological survey of stacked voice markers on experiencer predicates, which can serve as a case study for the generally underexplored topic of voice marker stacking.

Chapter 12

Conclusion

There is always more than one way to express an emotion. Only a few such ways could be explored in this dissertation: I had to limit myself to object-experiencer psych verbs, their voice constructions, and object-experiencer light verb constructions. Fortunately, these few ways of expressing an emotion have proven to be particularly interesting. Six research papers studied the constructional variation of object-experiencer predicates from different perspectives, working on German and on cross-linguistic samples, using corpus-linguistic and typological methodologies as well as semantic tests and theoretical argumentation. The four research questions raised in Chapter 1 and detailed out in Chapter 3 were each investigated in two or more of those papers, and additional insights were provided in the following Chapter 10. At this point, I am now in a position to provide answers to the four questions, summarizing the results of this dissertation.

RQ 1 What is the grammatical function of the detransitivized construction in the psych alternation?

Across languages, marking of the detransitivized construction is syncretic with anticausative marking, suggesting that the former is a subtype of the latter (Chapter 5). In German, the label ‘anticausative’ best describes the voice function that produces the set of diatheses observed for the detransitivized construction pattern (Chapter 9).

RQ 2 What is the grammatical function of object-experiencer light verb constructions?

LVC patterns can be used similar to corresponding synthetic verbs, and to form object-experiencer predicates with lexical roots for which no object-experiencer verb is available. They can also be employed for coordination of two emotions in a single object-experiencer predicate (Chapters 6, 7, 8, 9). Object-experiencer LVCs are causative predicates. As such, they can be used to enforce the interpretation of an emotional state or event as caused by an external causer and to avoid non-culminating interpretations (Chapters 6, 8, 9).

RQ 3 Which lexical restrictions operate on the psych alternation and on object-experiencer light verb constructions?

Lexical restrictions in both the psych alternation and LVC patterns can partly be explained by lexical semantic features, but not entirely (Chapters 4, 6, 7). While there are cross-linguistic regularities for some emotion concepts, the compatibility of emotion nouns with LVC patterns in Germanic and Romance languages is largely language-specific, and there is no significant division between the two genera (Chapter 7). The availability of the detransitivized construction and LVC patterns with the same lexical root is partly correlated (Chapter 10).

RQ 4 How can the relation between object-experiencer verbs and lexically corresponding light verb constructions be characterized?

Object-experiencer verbs and lexically corresponding LVCs are not synonymous, and they significantly differ in the types of arguments they occur with. The relation between verbs and corresponding LVCs is systematic and goes beyond simple lexical competition. Instead, it behaves like an alternation (Chapters 8, 9). LVCs can be analyzed as diatheses of corresponding verbs. These diatheses resemble non-prototypical uses of causative marking (Chapter 9). The detransitivized construction of the SV and the LVC patterns have converse functions in relation to the active voice constructions of the SV as anticausative and causative marking, respectively (Chapters 5, 8, 9).

For a contextualization of the results presented above, it must be highlighted that this work aims for any theoretical analysis to be motivated by function and speakers' actual usage of language. The relation between object-experiencer SVs and LVCs can only be described in a satisfying way if, on the question whether the two can be clause alternants of each other, we give their function precedence over their form. From a purely formal perspective, a LVC is certainly not a verb form. But the crucial point is: It behaves like one anyway. This work further stipulates that any theoretical analysis of language should not be designed to fit only one language. While I have mainly worked with German data, the results have a clear cross-linguistic dimension. The classification of the detransitivized construction of the SV as anticausative is backed by typological findings. LVC patterns are compared across languages, and the diathesis alternation analysis is designed such that it can be applied to other languages with similar grammatical premises.

The question as to how the semantics of the different construction patterns can be tested and modeled in a coherent way, as a sub-question of both RQ 1 and RQ 2, had to be left for future research, as well as a quantitative analysis of the behavior of constructions in the extended alternation. At the same time, the studies in this dissertation have given rise to new objects of research, e.g. the analysis of non-active voice constructions of causative LVCs as phenomena of voice marker stacking. As a final step in this dissertation, I have outlined possible paths for subsequent research on psych predicates that build on the results of my research. Two particularly promising research paths target the semantics of construction patterns, as well as the role of complex experiencer predicate patterns across languages: I suggest an experimental study on semantic reflexes of the anticausative and causative functions of the detransitivized construction and light verb constructions, respectively. Based on cross-linguistically attested semantic properties of causatives and anticausatives described in the literature, such a study should further corroborate my diathesis-based theoretical analysis in Chapter 9. The diathesis alternation approach developed for German could also be applied to further languages in a comparative study, potentially starting with a Germanic-Romance sample as used in Chapter 7, or extended towards subject-experiencer LVCs.

The research results on object-experiencer SVs and LVCs are relevant for future studies beyond this particular semantic domain, too. The role of LVCs and their relation to lexically corresponding SVs has long been a problem for analysis and linguistic theory – not only in the psych domain. My work doubles as a case study for the general question how the relation between LVCs and corresponding SVs should be analyzed. The same holds true for the finding that compatibility of nouns with different LVC patterns is not completely arbitrary and shows regularities across languages, but that the exact restrictions on patterns are language-specific. As a prerequisite for my diathesis alternation analysis, I advocate a broader understanding of what clause alternations and diatheses can be. This argumentation is not logically limited to psych predicates, and might

also be beneficial for the analysis of other constructions sharing the same lexical root, but not the same verbal lexeme. As for the reuse of methods, both the corpus-linguistic method for investigating the compatibility of nouns with LVC patterns and the voice syncretism method for the classification of voice marking functions are not limited by design to psych predicates, either, but await being tested on other patterns and semantic fields.

Let me conclude with one last set of examples:

- (1) a. *Das Thema dieser Dissertation faszinier-t mich immer noch.*
 DEF topic DEM.GEN dissertation fascinate-3SG 1SG.ACC always still
 ‘The topic of this dissertation still fascinates me.’
- b. *Ich ärger-e mich ein bisschen über die unbeantworteten Fragen.*
 1SG anger-1SG REFL.1SG INDF little about DEF unanswered question.PL
 ‘I am a little angry about the questions left unanswered.’
- c. *Ob die Lektüre dieser Arbeit auch anderen Linguist*innen Freude mach-t, weiß ich noch nicht.*
 whether DEF reading DEM.GEN work also other linguist.PL joy
 make-3SG know.1SG 1SG still NEG
 ‘I don’t know yet whether reading this work will make other linguists happy, too.’
- d. *Mich jedenfalls versetz-t der Moment der Abgabe in Euphorie.*
 1SG.ACC anyway transfer-3SG DEF moment DEF submission into euphoria
 ‘As for me, at least, the moment of submission fills me with euphoria.’

(German < Germanic < Indo-European, [stan1295](#))

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Declaration of AI Usage

Tools based on artificial intelligence were used for elements in this dissertation as follows. All suggestions generated by AI tools were evaluated by the author before implementation.

Writefull The Writefull integration in Overleaf was used to suggest corrections regarding spelling and grammar in Chapters [1](#), [2](#), [3](#), [5](#), [7](#), [9](#), [10](#), [11](#) and [12](#). The TeXGPT function of Writefull in Overleaf was used for the formatting of tables in Chapters [5](#) ([Wiskandt, 2026](#)), [7](#) ([Wiskandt, 2025](#)) and [10](#).

ChatGPT The R code used to create the plots in Chapter [8](#) ([Wiskandt & Turus, 2025](#)) was improved based on suggested code snippets generated by ChatGPT (model GPT-3.5). Furthermore, ChatGPT (models GPT-3.5 and GPT-4o) was used to resolve LaTeX code errors regarding the layout of the document.

DeepL Text translation in DeepL was used to suggest English idiomatic translations for parts of linguistic examples.