ON THE GRAMMAR OF OPTATIVE CONSTRUCTIONS
by
Patrick Georg Grosz

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Abstract

The primary aim of this dissertation is to present an analysis for so-called optative constructions, clauses that express a wish, hope or desire without containing a lexical item that means ‘wish’, ‘hope’ or ‘desire’. A secondary aim is to contrast optative constructions with so-called polar exclamatives, clauses that express surprise, shock or dismay at a given fact without containing a lexical item that means ‘surprise’, ‘shock’ or ‘dismay’. The goal is to better understand the way in which syntax, semantics and pragmatics interact in order to yield the meanings and uses that these constructions have.

The core claim is that we can understand optative constructions by virtue of exploring three properties that they share. First, I argue that optatives (and polar exclamatives) contain a generalized exclamation operator $EX$, which serves to express an emotion towards the status of the modified proposition on a contextually provided scale. Second, I argue that semantic mood (including factivity and counterfactuality) is encoded in a distinguished Mood head, the content of which co-determines both morphological mood and the material that overtly surfaces in the position of C. Third, I argue for a generalized analysis of prototypical particles, including non-exclusive ONLY, concessive AT LEAST and unstressed DOCH. My analysis treats these particles as truth-conditionally vacuous presupposition triggers, which interact with optativity in three different ways. First, they convey additional information with respect to the modified proposition. Second, they eliminate alternative readings for an ambiguous clause, due to incompatibility. Third, this disambiguating role makes them ideal licensors for a marked utterance type.

Chapter 1 of this dissertation is an introductory chapter that presents the core proposal in a nutshell. After this coarse overview, chapter 2 reviews some basic definitions and background on optatives and polar exclamatives. Subsequently, I proceed to a presentation of my entire system in chapter 3. The following chapters discuss each of the three core parts in turn, starting with the $EX$ operator in chapter 4, followed by semantic mood in chapter 5 and finally I discuss particles in chapter 6. Chapter 7 concludes.

Thesis Supervisor: Kai von Fintel
Title: Professor of Linguistics

Thesis Supervisor: Sabine Iatridou
Title: Professor of Linguistics
For my parents, Maria and Hans Grosz.
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1. Introduction: The Proposal in a Nutshell

*Optative utterances* express a wish, regret, hope or desire without an overt lexical item that means *wish, regret, hope* or *desire* (cf. Quirk et al. 1972, 1985, Scholz 1991, Rosengren 1993, Rifkin 2000, Asarina & Shklovsky 2008, Biezma 2011ab), as illustrated in (1). Optative utterances exhibit variation along several different axes, two of which can be stated as follows. First, optatives allow for form variation in their left periphery. The optative in (1a) is initiated by *that*, whereas its counterpart in (1b) is initiated by *if*.

(1) a. Oh, **that** I had told them both a year ago!
    (Martin F. Tupper. 1851. *The Twins; A Domestic Novel*. Hartford: Silas Andrus.)

    b. **If** only I had told them both a year ago!

Second, optatives vary in terms of the prototypical particles that they contain; (2a) contains *only*, (2b) contains *just*, and (2c+d) contain *but*. A large part of this project is dedicated to the study of *only* and its cross-linguistic counterparts (e.g. German *nur*).

(2) a. If I'd **only** listened to my parents!
    b. If I could **just** make them understand my point of view!
    c. If I could **but** explain!
    (Quirk et al. 1985:842)
    d. Oh that Apollo would **but** drive his horses slowly, that the day might be three hours longer; for it is too soon to depart, […]

A core puzzle arises from the apparent obligatoriness of particles in (2). English speakers share the intuition that (3), particle-free variants of (2a+b), are not well-formed optatives; in contrast, they appear to be incomplete conditionals. One goal is to account for this fact.

(3) a. #If I’d listened to my parents!
    b. #If I could make them understand my point of view!

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1 http://www.gutenberg.org/dirs/1/6/5/7/16574/16574-8.txt  
2 http://www.gutenberg.org/files/13872/13872-h/13872-h.htm
We face an apparent compositionality problem: For instance, can we derive the core meaning of an optative like (2a) compositionally from the standard meaning of an *if*-clause and the standard meaning of the particle *only*?

The answer that I propose radically differs from previous approaches to optativity. I reject the idea that optativity arises compositionally from the standard meaning of *if*-clauses and the standard meaning of particles. In contrast, I argue that optativity is inherently independent from the presence of such particles. To account for the quasi-obligatoriness of such particles, I argue that the semantics of the particles conspires with the semantics of an optative utterance, giving rise to the connection that we observe.

First, I argue that optative utterances are a variant of exclamative utterances, the meaning of which is due to a null operator *EX*. *EX* selects a contextually salient scale and conveys that the modified proposition exceeds a salient threshold on that scale. (Both *if*- and *that*-clauses can be complements to *EX.*) In optatives, the relevant scale reflects the speaker’s preferences, cf. (4). Crucially, the lexical meaning of *EX* is weak. It simply indicates that the modified proposition is relatively high on a contextually given scale.

My analysis treats various types of exclamations uniformly, including polar exclamatives (utterances that express surprise at a fact), cf. (5a). Such exclamatives also contain *EX*. Polar exclamatives only differ in the scale they select (roughly: *unlikelihood*), cf. (5b).

Similarly, I argue that particles in optatives involve weaker readings than their standard counterparts. For instance, while the standard (exclusive) *ONLY₁* meaning of *only* is most

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3 For English *if only* optatives, such a project has been pursued in the past by Rifkin (2000), Asarina & Shklovsky (2008), Biezma (2011ab).
aptly paraphrased as ‘no more than’, I argue that *only* has a second \ONLY_2 reading. \ONLY_2 is truth-conditionally vacuous and (on a level of non-truth-conditional meaning) conveys ‘lowness’ of the proposition that it modifies with respect to a salient scale. I argue that optatives involve \ONLY_2, schematized in (6)^4.

(6) \[ ||\ONLY_2(\phi)|| \text{ is defined iff } \phi \text{ is low on a salient scale. If defined, } ||\ONLY_2(\phi)|| = ||\phi||. \]

It follows that optativity does not compositionally arise from the presence of the particles *only*, *just* or *but*. I argue that their quasi-obligatoriness is due to the following semantic conspiracy. As discussed above, *EX* contributes generalized exclamativity, one shade of which is optativity, while particles (such as \ONLY_2) contribute non-truth-conditional meaning. The contribution of *EX* is thus orthogonal to that of the particles. However, utterances with the shape of an optative typically have various readings, some of which are more marked than others. Example (7a) has an optative reading, given in (7c). Nevertheless, the non-optative reading in (7b) is less marked. I propose that the *blocking* of (7c) is due to extra-grammatical principles that govern successful communication.

(7) a.\# If I’d listened to my parents!
   b. unmarked reading: \# *conditional antecedent* (infelicitous, because incomplete)
   c. marked reading: \checkmark optative utterance (good, but somehow blocked)

I argue that particles bias marked readings, due to implicatures that they trigger or due to incompatibility with unmarked readings. This reverses interpretive preferences, cf. (8).

(8) a.\checkmark If I’d *only* listened to my parents!
   b. dispreferred unmarked reading: \# *conditional antecedent*
   c. preferred marked reading: \checkmark optative utterance

I proceed to account for the deviant status of (7a) by making standard assumptions on rational discourse participants (cf. Lewis’s 1969 *signaling games*). I argue that to warrant

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^4 Strictly speaking, English *only* is more specialized (and cross-linguistically less typical) under its \ONLY_2 reading, in that it restricts the salient scale to a bouletic scale (similar to Nakanishi & Rullmann’s 2009 concessive *at least*). The generalized entry in (6) captures the meanings of cross-linguistic equivalents, such as German *nur* ’only’ and Czech *jen* ’only’, whose \ONLY_2 readings are not restricted to bouletic scales.
successful communication, the speaker will use particles to bias a marked reading whenever the context is insufficient to eliminate a less marked reading. Correspondingly, a hearer will interpret particle-free utterances according to contextual bias (i.e. prior probability). Given that the unmarked readings have a higher probability, (7a) will always be interpreted (and intended by the speaker) as the conditional fragment in (7b) and not as the optative in (7c). This derives the quasi-obligatoriness of particles in optatives.

To summarize, I argue against an approach in which the meaning of particles is a compositional ingredient of the desirability that optatives convey. Opposing such a view, I argue for a new perspective that can be stated as follows. The core meaning of an optative is independent from the meanings of particles that it contains, but the two meaning components conspire to give rise to the quasi-obligatoriness of such particles.
2. Prolegomena: Definitions, Terminology and Other Basic Matters

So-called ‘optative constructions’ are currently underrepresented in formal linguistic research. Therefore, this chapter discusses some basic definitions, terminology and other matters that need to be addressed before investigating the formal syntax and semantics of such constructions. Section 2.1 introduces the subject matter of this dissertation, defining a number of relevant descriptive concepts. Section 2.2 focuses on the English if only construction, which is a familiar optative construction that has been addressed before (Rifkin 2000, Asarina & Shklovsky 2008, Biezma 2011ab). By reviewing arguments from Rifkin (2000) and adding a new argument, I dispel the hypothesis that if only is a lexicalized (idiomatic) expression (one might call this view the ‘idiom hypothesis’). However, I also argue against a special status of only as an optativity marker, and I argue in favor of a set of meanings that correlate with optativity, including the meanings of only, at least and but.

2.1 Optatives – Definitions and Illustrations

2.1.1 Optative Basics: Introducing if-Optatives, that-Optatives and V1-Optatives

Let me open this discussion with some illustrations of the topic of investigation. Example (9) illustrates an optative utterance of the type that I investigate (cf. Quirk et al. 1972, 1985, Scholz 1991, Rosengren 1993, Rifkin 2000, Asarina & Shklovsky 2008, Biezma 2011a). (The translation by means of if only should not obscure the fact that the Latin original in (9) does not contain a particle that means ‘only’, and that the Latin original uses the complementizer that instead of if.) I define optative utterance as an utterance that expresses a wish, regret, hope or desire without containing a lexical item that means wish, regret, hope or desire (cf. Rifkin 2000, Asarina & Shklovsky 2008). Optatives are typically perceived to be a type of exclamation (defined as utterances that are predominantly used to exclaim), cf. Quirk et al. (1972, 1985), Rifkin (2000).
The Latin example in (9) clearly fits the above definition of an optative utterance. The meaning that is expressed can be roughly paraphrased as in (10a) or (10b). (All paraphrases are preliminary, and nothing hinges on the choice between the two.)

(10) a. I wish [that the Attic ships had never touched the Knossian shores].
    b. It would be good [if the Attic ships had never touched the Knossian shores].

Translating (9) to German, we find a wide range of constructions that comply with the definition above. They can be described in terms of two factors, illustrated in the following examples. The first factor is the complementizer that they choose (if versus that; a third option is the lack of a complementizer); the second factor is their grammatical mood (counterfactual/subjunctive versus non-counterfactual/indicative). One prototypical property of optative utterances is that they have the distribution of unembedded utterances but the morphosyntax of an embedded clause. I define (independent) if-optative as an if-clause that expresses a wish without a wish lexical item and is not accompanied by an overt matrix clause. This is illustrated in (11) for German. (11a) is a counterfactual if-optative and (11b) is a non-counterfactual if-optative.

(11a) subjunctive, counterfactual if-optative
    Ach, wenn ihre Schiffe unsere Ufer doch nur nie erreicht hätten!
    oh if their ships our shores DOCH only never reached had
    ‘Oh, if only their ships had never reached our shores!’

(11b) indicative, non-counterfactual if-optative
    Oh, wenn ihre Schiffe unsere Ufer nur JA nie erreichen!
    oh if their ships our shores only JA never reach
    ‘Oh, if only their ships will never reach our shores!’

5 I remain agnostic as to whether there are non-counterfactual subjunctive optatives (but see Scholz 1991).
6 This fact gives rise to the intuitive (but wrong, as I will argue in section 4.1.4) view that optatives involve an elided matrix clause (cf. Evans 2007).
In analogy to *if-optative* we can define (*independent*) *that-optative* as a *that*-clause that expresses a wish, desire or hope without a corresponding lexical item and is not accompanied by an overt matrix clause. Example (12) illustrates *that-optatives* in German.

(12)a. *subjunctive, counterfactual that-optative*

   Ach, **dass** ihre Schiffe unsere Ufer doch nur nie erreicht hättten!
   oh that their ships our shores DOCH only never reached had
   ‘Oh, that only their ships had never reached our shores!’

b. *indicative, non-counterfactual that-optative*

   Oh, **dass** ihre Schiffe unsere Ufer nur JA nie erreichen!
   oh that their ships our shores only JA never reach
   ‘Oh, that only their ships will never reach our shores!’

Finally, we can define *V1-optative* as a *V1*-clause that expresses a wish, desire or hope in the same way, but employs (V-to-)T-to-C movement instead of an overt complementizer. Example (13a) illustrates a counterfactual V1-optative. Example (13b) shows that indicative V1-optatives cannot be formed by simply fronting the verb. They require an additional existential modal, as in (13c) (cf. Gärtner 2010). One may call (13c) a *may-optative* (see Portner 1997 for reasons to treat *mögen* ‘may’ as a mood marker rather than a verb or modal auxiliary, so (13c) may not technically be a construction that involves T-to-C movement).

(13)a. *subjunctive, counterfactual V1-optative*

   Ach, **hätten** ihre Schiffe unsere Ufer doch nur nie erreicht!
   oh had their ships our shores DOCH only never reached
   ‘Oh, had their ships only never reached our shores!’

b. *ungrammatical indicative, non-counterfactual V1-optative*

   *Oh, **erreichen** ihre Schiffe unsere Ufer nur JA nie!
   oh reach their ships our shores only JA never
   ‘Oh, reach their ships only never our shores!’
c. *indicative, non-counterfactual may-optative*

Ach, mögen ihre Schiffe unsere Ufer nur JA nie erreichen!
oh may their ships our shores only JA never reach
‘Oh, may their ships never reach our shores!’

Having thus established some basic definitions, we can formulate the main questions of this research project as follows. On the one hand, how should the semantics and pragmatics of optative constructions be analyzed and formalized? On the other hand, what is their syntax? Specifically, do they have the same structure and meaning as non-optative embedded clauses or do they have a distinct structure and meaning? Two crucial questions here are whether the perceived wish is derived compositionally and whether the particles that occur in optatives trigger that wish (cf. Rifkin 2000, Asarina & Shklovsky 2008). The last question is particularly prominent in English, where optatives typically require the particle *only*, illustrated in (14) versus (15); all of the examples in (14) and none of the examples in (15) have an optative reading.

(14) a. **If you only** knew the power of the dark side.
   (Leigh Brackett & Lawrence Kasdan. 1980. Screenplay for “Star Wars Episode V: The Empire Strikes Back”.)

   b. **If he only** had some one with whom he could talk.

   c. **If only** literature could be a cellphone-free zone.

(15) a.# If you knew the power of the dark side.

   b.# If he had some one with whom he could talk.

   c.# If literature could be a cellphone-free zone.

While we will see that other languages are much more flexible in this regard, English seems to rely strongly on *only*, making it useful to define *optative particle* as a particle that, when placed into an *if*-clause (or *that*-clause or V1-clause), turns it into an *if*-optative (or *that*-optative or V1-optative). This is a purely descriptive definition with no
theoretical import; I will show that many optative particles do not seem to be ‘optative’ on their own. The problem that optative particles raise is stated by Rifkin (2000) for the particle only, and can be summarized as follows: Many languages have if-optatives that involve an if-clause and a particle that means only (see section 2.2 of the present chapter and section 6.2). Given that neither if-clauses nor only are optative on their own, the question arises whether if and only compositionally interact in a way that gives rise to optativity. I adopt this research question as another main question to be addressed in this dissertation; however, I will extend it to other optative particles, such as particles that mean at least and but/though (see section 2.2).

For much of this dissertation, I will be focusing on if-optatives and less so on that-optatives. However, the latter are cross-linguistically well-represented and they also occur productively in early Modern English, as shown in the illustrations in (16). Therefore, it would be premature to assume that if-optatives are less marked than that-optatives. As shown in (16a-c), English that-optatives do not require an optative particle, and, if there is an optative particle, it is but, as in (16d+e); I will come back to but in section 2.2.

(16) a. **Oh, that** I had told them both a year ago!
   (Martin F. Tupper. 1851. *The Twins; A Domestic Novel*. Hartford: Silas Andrus.)

   b. “My father!” she added, almost mournfully; **“oh, that** I had never left you!”
   (T.S. Arthur. 1868. *After the Storm*. Philadelphia.)

   c. “Oh! what a charming creature thou art! What a happy man will he be that first makes a woman of you! **Oh! that** I were a man for your sake!”

---

7 English only in optatives seems to be the exception rather than the rule in being a specialized optative element, cf. section 6.2.2.

8 In fact, it is not clear that but in (16e) acts as an optative particle, as the most natural paraphrase in terms of a wish-statement would be (i), in which but is replaced by only; in (16d) this is less clearly so.

   i. **I wish I only** had to turn and embrace my […] grandmother.

9 http://www.gutenberg.org/dirs/1/6/5/7/16574/16574-8.txt

10 http://www.gutenberg.org/dirs/etext03/frth10.txt

11 http://www.gutenberg.org/files/25305/25305-h/25305-h.htm
d. **Oh that** Apollo would **but** drive his horses slowly, **that** the day might be three hours longer; for it is too soon to depart, and that for fear of a pocky setting of the Watch.  

e. **Oh! that** I had **but** to turn and embrace my kind, good, benevolent, and much respected grandmother.  

At this point, a discussion of the descriptive link between *if*-optatives and garden-variety *if*-clauses is in place. I address this link in the next section.

### 2.1.2 *If*-Optatives are not Optative Conditionals

The purpose of this section is to briefly contrast *if*-optatives with conditionals that have optative properties (which I call *optative conditionals*); the objective is to narrow down the scope of our discussion to the former. To begin with, Rifkin (2000) gives us reason to distinguish between two separate types of optative constructions that involve *if*-clauses. He notices that we should differentiate between *independent if*-optatives\(^{14}\) (which he himself calls *if only p!* constructions), (17a), and *optative conditionals* (which he calls *if only p, q* constructions), (17b). I define *optative conditional* as a conditional clause with an antecedent that can also be used as an independent *if*-optative and appears to convey a wish (e.g. by virtue of containing an optative particle). I will use the term *optative antecedent* to refer to the antecedent of an optative conditional, as illustrated in (17b).

\begin{align*}
(17)\ a. & \quad \textit{independent if-optative} \\
& \quad \text{If only it would snow!} \\
& \text{b.} \quad \textit{optative conditional} \\
& \quad \text{If only it would snow, things would be good.} \\
& \text{optative antecedent}
\end{align*}

\(^{12}\) [http://www.gutenberg.org/files/13872/13872-h/13872-h.htm]
\(^{13}\) [http://www.gutenberg.org/files/5650/5650-h/p4.htm]
\(^{14}\) *Independent if-optative* and *optative conditional* are my terminology.
The fact that optative antecedents in English express a wish even though they are embedded in an optative conditional is shown in my examples (18a) and (18b). (18a) has a non-optative conditional semantics, under which the speaker does not express any evaluation with respect to the antecedent. In contrast, (18b) only has a reading under which the speaker expresses a positive evaluation of the antecedent; in other words, (18b) has an optative reading.

(18) Context: *I love snowboarding and I want to go snowboarding as often as possible.*

   a. If it snowed tonight, we would go snowboarding tomorrow …  
      (but I really don’t want it to snow, because I hate shoveling the sidewalks).
   
   b. If only it snowed tonight, we would go snowboarding tomorrow …  
      (#but I really don’t want it to snow, because I hate shoveling the sidewalks).

Rifkin argues that the distinction between independent *if*-optatives and optative conditionals is meaningful. To give a first illustration, optative conditionals can be embedded, (19a), whereas independent *if*-optatives cannot be embedded, (19b). We will discuss this distinction in more detail later.

(19)  a. Avi thinks that [if only it would snow, things would be good].

      b. *Avi thinks that [if only it would snow].

      (Rifkin 2000)

Rifkin uses observations on binding to argue that optative antecedents are truly part of the optative conditional. If an optative conditional is further embedded (as in (19a)), it becomes possible to bind into the optative antecedent, shown by Rifkin in (20a+b); this also appears to hold for German, as I show in (20c), where the optative antecedent is right-peripheral.

(20)  a. No pirate\_i doubted [that if only he\_i had had a map, he would have found the treasure].

      b. Each/Every pirate\_i convinced me [that if only he\_i had had a map, he could have found the treasure].

      (Rifkin 2000)
We may thus conclude that there are independent *if*-optatives as well as optative conditionals with a (truly embedded) optative antecedent. However, I now briefly review evidence that *if*-optatives can never truly be embedded (see also sections 4.1.4 and 4.1.6); I conjecture that optative conditionals are either paratactic construction or a subtype of conditional clause that I introduce in section 6.2.2 under the label of *minimal sufficiency conditional*. The main focus will be on *if*-optatives (and *that*-optatives/*V1*-optatives), and not on optative conditionals.

The core question with respect to apparent optative conditionals concerns the nature of the link between an optative antecedent and the conditional that contains it. As observed by Scholz (1991), it is highly marked to truly integrate an optative antecedent into its host clause (which can be shown in German, while it is much more difficult to do so in English). In (21a+b), the *if*-clause acts as the first constituent in the clause for the purposes of V2. I take *if*-clauses in pre-V2 position to be integrated, as opposed to *if*-clauses that adjoin to a complete V2 clause, (22) and (23). As shown in (21b), optative antecedents cannot be truly integrated into their host clause (henceforth: *the unembeddability generalization*), contrasting with non-optative antecedents, (21a), which can be integrated.

(21) a. Wenn ich reich wäre, würde ich dieses Haus kaufen. 
   *if* I rich were *would* I this house buy
   ‘If I were rich, I would buy this house.’

   b. ??? Wenn ich **doch nur** reich wäre, würde ich dieses Haus kaufen. 
   *if* I *doch only* rich were *would* I this house buy
   ‘If only I were rich, I would buy this house.’
The examples in (22) show that optative antecedents are well-formed in any of the less integrated adjunct positions, i.e. when left-adjoining or right-adjoining to a complete V2-clause. It is quite plausible that such constructions are formed by means of parataxis of two independent clauses (an if-optative and a modally subordinated declarative).

(22) a. Wenn ich **d**och nur **reich** wäre, dann würde ich dieses Haus kaufen.
    If I **d**och only rich were then would I this house buy
    ‘If only I were rich, then I would buy this house.’

b. Wenn ich **d**och nur **reich** wäre, ich würde dieses Haus kaufen.15
    if I **d**och only rich were I would this house buy
    ‘If only I were rich, then I would buy this house.’

c. Ich würde dieses Haus kaufen, wenn ich **d**och nur **reich** wäre.
    I would this house buy if I **d**och only rich were
    ‘I would buy this house, if only I were rich.’

Non-optative counterparts to (22) are given in (23).

(23) a. Wenn ich **reich** wäre, dann würde ich dieses Haus kaufen.
    if I rich were then would I this house buy
    ‘If I were rich, I would buy this house.’

b. Wenn ich **reich** wäre, ich würde dieses Haus kaufen.
    if I rich were I would this house buy
    ‘If I were rich, I would buy this house.’

c. Ich würde dieses Haus kaufen, wenn ich **reich** wäre.
    I would this house buy if I rich were
    ‘I would buy this house, if I were rich.’

Counterexamples to the unembeddability generalizations can be found. The examples in (24) are naturally occurring examples, found on google. (Brackets are added to mark the first constituent in pre-V2 position, i.e. the if-clause.) They have been verified with native

15 For discussion of such “V3-conditionals” see König & Van der Auwera (1988), Reis & Wöllstein (2010). Note that a priori there are no reasons why (23b) should differ in any meaningful way from (23a), though the aforementioned authors point out that the (23b) variant is restricted to the subjunctive and to causal (non-epistemic) conditionals, where the antecedent proposition is a cause for the consequent proposition (as opposed to the antecedent proposition being evidence for the consequent proposition).
speakers and seem to be much more acceptable than other examples, such as (21a), for reasons that are unclear\(^{16}\).

(24) a. [Wenn ich **doch nur** könnte] **würde** ich die Zeit zurück drehen und alles anders machen!

   ‘If only I could, I would turn back time and do everything differently!’

b. [Wenn ich **doch nur** könnte], **würde** ich sofort kommen.

   ‘If only I could, I would come immediately.’


   ‘Oh, if only I could, I would immediately start working with you.’

Note that alternative structures are possible to convey the same content, indicating that it is not ellipsis in the *if*-clause that enforces integration; in addition to (24b), all of the variants in (25) are acceptable.

(25) a. [Wenn ich **doch nur** könnte], dann **würde** ich sofort kommen.

   ‘If only I could, I would come immediately.’

b. [Wenn ich **doch nur** könnte], ich **würde** sofort kommen.

   ‘If only I could, I would come immediately.’

c. Ich **würde** sofort kommen, [wenn ich **doch nur** könnte].

   ‘I would come immediately, if only I could.’

Given the rarity of examples like (24), and their apparent markedness, I will only discuss them in passing. However, it is worth keeping in mind that a strict version of the

\(^{16}\) The elliptical nature of the antecedents may play a role, but as of now it is unclear why this would be the case and what the other decisive factors are.
unembeddability generalization of Scholz (1991) stands challenged in light of such examples. It is plausible that we are dealing with an interaction of different structural and non-structural factors that lead to the general degradedness of integrated optative antecedents\(^{17}\). As for the binding effects in (20), such constructions can plausibly be treated as some type of minimal sufficiency conditional, a concept introduced in section 6.2.2. Henceforth, the focus will be on if-optatives (as well as that-optatives/V1-optatives) and not on optative conditionals.

### 2.1.3 Cautionary Remarks on Optative Mood and Optative Clause Type

To conclude section 2.1, I wish to distance myself from the notions of optative sentence type / optative clause type on the one hand (though I will briefly come back to this notion in section 3), and optative mood on the other hand. As regards the former, I do not assume a theory or framework where ‘clause types’ or ‘sentence types’ are primitives (pace Scholz 1991, Brandt et al. 1992, Rosengren 1992, 1993; see also Altmann 1987). Therefore, this notion will not be relevant for my investigations. As for (grammatical) optative mood, this is a descriptive term for specialized morphology, commonly associated with wishes; we find optative mood in languages like Albanian (Camaj 1984), Romanian (Nandris 1961) and Ancient Greek (Hansen & Quinn 1987). The following examples show clearly that there is no one-to-one correspondence between optative mood and the optativity that I am concerned with.

As a first illustration, consider Albanian. Here, if-optatives seem to select subjunctive mood, (26a+b), whereas that-optatives select optative mood, (26c).

\(^{17}\) Alternatively, (24) may involve a rare type of parataxis, involving matrix clauses with V1 order; see Axel & Wöllstein (2008) and Reis & Wöllstein (2010) on the idea that there are true V1 clauses in German.
Romanian has a different pattern, which loosely appears to be the opposite of Albanian. Here, *if*-optatives select optative mood, as shown in (27a+b), whereas complementizer-less optatives select subjunctive mood, shown in (27c). Given that Romanian does not seem to have *that*-optatives, we might analyze (27c) as the Romanian version of a *that*-optative\(^\text{18}\), with this premise, Romanian is exactly the mirror image of Albanian.

(27) a. Măcar dacă ar fi ascultat-o!  
\textit{Romanian} \hspace*{1.3cm} \textit{MACAR}\(^\text{19}\) \textit{if opt} be listened-her  
‘If only he had listened to her!’

b. Măcar de-ar fi ascultat-o!  
MACAR \textit{if-opt} be listened-her  
‘If only he had listened to her!’

c. Ah, să fi ascultat John de Mary!  
\textit{oh subj} be listened John of Mary  
‘Oh, that John had listened to Mary!’

Finally, according to Palmer’s (2001) glosses, Classical Greek exhibits an optative / indicative split within the same construction, namely in *if*-optatives introduced by εἰ γάρ (εἰ gár) ‘for if, if only’. This is illustrated in (28a+b) versus (28c). Contrasting with Romanian, the complementizer-less optative in (28d) must be in the optative mood.

(28) a. εἰ gár tosaúte:n dúnamin eikh-on\(^\text{20}\)  
\textit{Ancient Greek}\(^\text{21}\) \textit{if for such strength have-1sg.impf.indic}  
‘If only I had such strength!’ (Eur. A!c. 1072)

\textsuperscript{18} As a matter of fact, Ammann & van der Auwera (2004) treat să as a modal complementizer meaning ‘that’.

\textsuperscript{19} Romanian măcar can be translated as ‘at least’ or as ‘even’ (Andreea Nicolae, p.c.); as will be discussed in section 2.2, this is commonly assumed to be a cognate of the optative particle makari in Greek.


\textsuperscript{21} Palmer (2001) argues that the “optative mood” in Classical Greek is nothing more than a “past subjunctive”, as it is in complementary distribution with “present subjunctive”.

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28
b. ei gár m’ hupó gén … hé:k-en\(^{22}\)
   if for me below earth send-3sg.aor.indic
   ‘If only he had sent me under the earth.’ (Aesch. P.V. 152)

c. ei gár gen-ime:n\(^{23}\) téknon, anti soú nekrós
   if for become-1sg.aor.opt child instead.of you corpse
   ‘If only I were a corpse, my child, instead of you!’ (Eur. Hipp. 1410)

d. ó: pai gén-oio\(^{24}\) patrós eutukhésteros
   O child become-2sg.aor.opt of.father luckier
   ‘Oh child, mayst thou be luckier than thy father.’ (Soph. Aj. 550)

(Palmer 2001:208-217)

We can thus conclude that cross-linguistically, optative mood does not consistently correlate with any obvious feature of optative clauses. I will however come back to the idea that (semantic, rather than grammatical) mood plays a role in optative constructions, in section 5.

\[ \textcolor{red}{2.1.4 \textbf{Interim Summary and Terminological Clarifications}} \]

To summarize the main aspects of this section, I have introduced the concepts of if-optative and that-optative (in 2.1.1) and clarified the definitions that I will be presupposing. In 2.1.2, I have reviewed evidence that we should differentiate between two types of optative constructions that involve if-clauses: independent if-optatives and optative conditionals, of which I will focus on the former. I have shown that these do not exhibit the same behavior in all regards and should thus be distinguished. Finally, in section 2.1.3 I discussed evidence that there is no one-to-one mapping between optative utterances and so-called optative mood.

Having shown the lay of the land, it is worth defining a few more terms that I will use in this dissertation. First, optative clause is a descriptive term for the sentence (i.e. the grammatical construction) that is used in an optative utterance. Second, optative speech

act is a descriptive term for the perceived exclamation or ‘expression of a wish’ that is typical for the use of an optative utterance. Finally, optative and optativity are cover terms that subsume optative utterances, optative clauses and optative speech acts whenever vagueness is in order. I will also be speaking of optative readings versus non-optative readings if an utterance is ambiguous between an optative utterance and something else that doesn’t express a wish.

2.2 Dispelling the Idiom Hypothesis

Looking at English, an intuition that native speakers report is that if only utterances are idiomatic / formulaic. This can be made precise in the shape of what I call the idiom hypothesis. The idiom hypothesis assumes that if only is an idiomatic expression encoding a wish (cf. also Quirk et al. 1972, where if only utterances are considered formulaic). As an alternative, I formulate the optative hypothesis as follows: Optatives are specialized utterances that have certain prototypical properties, e.g. the presence of an optative particle. This section reviews three reasons to reject the idiom hypothesis in favor of the optative hypothesis; by doing so, it also reviews some of the basic findings on optatives. Two of the reasons to reject the idiom hypothesis stem from Rifkin (2000); the third has not been formulated in this way before.

Rifkin’s first argument to dispel the idiom hypothesis can be summarized as follows. If the combination of if and only was idiomatic, we might expect the two elements to cluster in some sense or other, i.e. it would be plausible that they are obligatorily adjacent. As Rifkin shows, this is not the case, cf. (29). The particle only can occur in different parts of the clause (roughly: above negation) without affecting the optative interpretation. In (29b), only surfaces below the subject; in (29c), it occurs between the past tense auxiliary had and the negation. As (29d) shows, it cannot occur below negation, which indicates that its placement is restricted by the syntax or semantics of optatives (possibly the generalization is that only has to take wide sentential scope).

(29) a. If only he didn’t have a gun!  \( \approx \) I wish he didn’t have a gun.)
   b. If he only didn’t have a gun!  \( \approx \) I wish he didn’t have a gun.)
c. If he had **only** not had a gun!  
(≈ I wish he hadn’t had a gun.)

d.# If he hadn’t **only** had a gun!  
(*feels incomplete – no optative reading*)

(from Rifkin 2000)

Rifkin’s second argument against the idiom hypothesis is that optative readings arise in a variety of languages if we place counterparts of the particle *only* into a conditional antecedent. His examples are given in (30). (See chapter 6.2 for a wider range of data.)

(30)a. **Wenn** Hans **nur** reich wäre!  
*German*  
if Hans only rich were  
‘If only Hans were rich!’

b. **Se solo/soltanto** Gianni fosse ricco!  
*Italian*  
if only Gianni be.subj rich  
‘If only Gianni were rich!’

c. **Jesli** by ja **tol’ko** byl bogatym!  
*Russian*  
if I only be.past rich.inst  
‘If only I were rich!’

d. **ilu/lu rak** hayiti ashir!  
*Hebrew*  
if only be.past.1sg rich  
‘If only I were rich!’

e. **Jos vain** olisin rikas  
*Finnish*  
if only be.cond.1sg rich  
‘If only I were rich!’

f. **John-i -puca-i-ki-man** ha-ess-te-**ramyun**  
*Korean*  
John-Nom rich.person-be-nmlz-only do-Past-Past-if  
‘If only I were rich!’

(Rifkin 2000)

Rifkin draws the following conclusion: Given the diversity of languages in which a combination of *if* and *only* gives rise to optativity, this cannot be a coincidence, i.e. these expressions cannot be idiomatic or formulaic. A possible concern that needs to be raised here is that optative markers seem to be very prone to becoming loan words. As we will see, many languages in Europe have a cognate of the Greek optative particle *makari*, many languages in South Asia and South-West Asia have a cognate of the optative
particle *kash*, and Spanish *ojalá* as well as Portuguese *oxalá* seem to be loan words from Arabic. Without an investigation of when the constructions in (30) emerged historically, the fact that optative constructions are often loaned into other languages weakens the force of Rifkin’s argument.

Rifkin’s argument that *only* makes a compositional, non-idiomatic contribution to optatives is however corroborated by the following fact, unnoticed by Rifkin (but noticed in Quirk et al. 1985). In English, the particle *just* can also license optativity, as illustrated in (31).

(31) a. Oh, if he **just** knew how much we miss him!
   (= I wish he knew how much we miss him!)

   b. Oh, if **just** once I could be a guest in such a beautiful house!
   (= I wish I could once be a guest in such a beautiful house!)

While (31a+b) have been constructed and checked with native speakers, written examples can be found in a corpus search, as given in (32).

(32) Oh, if **just** once in my whole life I could have even so much as an atticful of home! Oh, please--please--please, Mr. Barton!

It would be rash to conclude that all elements that roughly mean *only* can license optativity, as restrictions do apply. The particle *merely* does not seem to license optativity in English, (33), putting it in clear opposition to *only* and *just*.

(33) # Oh, if he **merely** knew how much we miss him!  (≠ I wish he knew …)

I now continue my discussion of the idiom hypothesis, as outlined above, and I will come back to an in-depth discussion of *only* in chapter 6.2.

As a preamble to the third argument against the idiom hypothesis, a critical evaluation of Rifkin’s observations is in place. While Rifkin successfully dispels the idiom

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hypothesis, he implicitly exhibits a bias for a hypothesis that we may call the only-optative hypothesis and state as follows: Optatives (or at least if-optatives) are utterances that express a wish by means of placing the particle only into a conditional antecedent. This is more specific than the optative hypothesis that I proposed above. The following data argue not only against the idiom hypothesis but also against the only-optative hypothesis. In a nutshell, it can be observed that cross-linguistically only is not the only particle that can be used to generate an optative reading. Roughly, I show that the particles that are prototypical for optative clauses are taken from a semantic field that subsumes only, at least and but/though.

Focusing on if-optatives, Scholz (1991) shows that nur ‘only’ is not the only optative particle in German. The particle doch (roughly: ‘but/though’) can also act as an optative particle, cf. (34b).

(34) a. Wenn Otto nur auf seine Mutter gehört hätte! \(\text{German}\)
   if Otto only to his mother listened had
   ‘If only Otto had listened to his mother!’

   b. Wenn Otto doch auf seine Mutter gehört hätte!
   if Otto DOCH to his mother listened had
   ‘If only Otto had listened to his mother!’

Dutch behaves like German in allowing for several different optative particles, including maar ‘only/but’, nou ‘now’ and the cluster toch eens ‘but once’\(^{26}\), illustrated in (35).

(35) a. Als Jan maar naar Marie had geluisterd! \(\text{Dutch}\)
   if Jan only/but to Marie had listened
   ‘If only John had listened to Mary!’

   b. Als Jan nou naar Marie had geluisterd!
   if Jan now to Marie had listened
   ‘If only John had listened to Mary!’

   c. Als Jan toch eens naar Marie had geluisterd!
   if Jan TOCH once to Marie had listened
   ‘If only John had listened to Mary!’

\(^{26}\) Note that neither toch nor eens seems to be able to license an optative reading on its own.
Even more strikingly, 19th century English patterns very much like German and Dutch in allowing if-optatives with the optative particle *but*, shown in (36). Particularly interesting is (36a), which contains an if-optative with *but*, followed by an if-optative with *only*. This shows that *only* did not replace *but* (as one might conjecture, also given the exclusive reading of *but* which is equivalent to *only*); rather did they co-exist, as is currently the case in German (*nur ‘only’ / doch ‘but/though’) and Dutch (*maar ‘only’ / toch eens ‘but for once’).

(36)  
   a. “Oh, *if* Papa would *but* give you to me!” exclaimed Miss Inches one day. “*If only* I could have you for my own, what a delight it would be!”  
      (Susan Coolidge. 1875/1893. Nine Little Goslings. Boston: Roberts Brothers.)

   b. Oh, *if* I could *but* once get to yonder house, and *but* look upon whoever the happy being is that lives there!  
      (Herman Melville. 1856. The Piazza Tales. New York: Dix & Edwards.)

   c. Oh! *if* Frederick had *but* been a clergymen, instead of going into the navy, and *but* being lost to us all! I wish I knew all about it.  
      (Elizabeth Cleghorn Gaskell. 1854-1855. North and South. Serially in *Household Words*.)

   d. Oh, *if* he could *but* get down to that stream!  

   e. Nay, *if* he could *but* once see the meanness of this detestable vice; would he *but* once reflect that he is one of the most scandalous as well as pernicious liars; sure he must despise himself to so intolerable a degree, that it would be impossible for him to continue a moment in such a course.  
      (Henry Fielding. 1742. Joseph Andrews Vol.2. Edited by George Saintsbury.)

We can thus safely reject the idiom hypothesis as well as the *only*-optative hypothesis, and assume the optative hypothesis, repeated from above: Optatives are specialized...
utterances that have certain prototypical\textsuperscript{32} properties, e.g. the presence of an optative particle.

We can also elaborate on the set of particles that can serve as optative particles, to delimit the range of data that an explanatory theory should cover. As we have seen, only and but (or possibly though) have a meaning that can be employed by a language to mark optativity. A third class of optative particles subsumes elements that mean at least. Scholz (1991) states that an utterance like (37a) should be analyzed as an optative. The intuition shared by native speakers of German is that (37a) is clearly an independent utterance that expresses a wish\textsuperscript{33}. (37a) differs from (37b) in that (37a) seems to express a more modest wish, as follows. Example (37b) with nur ‘only’ conveys that if Otto had listened to his mother, things would be significantly better. In contrast, example (37a) with wenigstens ‘at least’ conveys that if Otto had listened to his mother, things may strictly speaking not be much better, but things would at least be somewhat better / less bad than they are.

\begin{itemize}
\item[(37)\textsuperscript{a}]{Wenn Otto \textit{wenigstens} auf seine Mutter gehört hätte! \textit{German}}
\end{itemize}
\begin{itemize}
\item if Otto \textit{at.least} to his mother listened had
\item ‘If Otto had at least listened to his mother!’
\end{itemize}
\begin{itemize}
\item[(37)\textsuperscript{b}]{Wenn Otto \textit{nur} auf seine Mutter gehört hätte!}
\end{itemize}
\begin{itemize}
\item if Otto \textit{only} to his mother listened had
\item ‘If only Otto had listened to his mother!’
\end{itemize}

An example that emphasizes the difference between nur ‘only’ and wenigstens ‘at least’ is given in (38). (38a) is an only-optative that expresses a ‘real wish’ (i.e. if he hadn’t gone to the demonstration, I would be satisfied); in contrast, the at least-optative in (38b) seems to express a ‘modest wish’ (i.e. if he had gone, but not provoked the policemen, I

\textsuperscript{32} It is controversial whether optative particles are a necessary component of optative clauses. I will address this matter and follow Rosengren (1993) in assuming that these particles are prototypical rather than necessary.

\textsuperscript{33} The translations of (37a) into English and Dutch are not accepted by native speakers of these languages, but we will see that many languages other than German do allow for at least optatives.
wouldn’t be satisfied, but I would be more satisfied than I am); this distinction is captured by the (informal) paraphrase in (38c).

(38) **Context:** My son wanted to participate in a demonstration against the current government. I told him not to go, as the last demonstrations were always accompanied by a lot of violence. He decided to go anyway, which would have been bad enough, as he got into a fight and got severely bruised. Furthermore, he provoked the policemen and got himself arrested.

a. Ach, wenn er **nur** nicht auf diese Demo gegangen wäre!
   ‘Oh, if only he hadn’t gone to this demonstration!’

b. Oder wenn er **wenigstens** nicht die Polizisten provoziert hätte!
   ‘Or if at least he hadn’t provoked the policemen!’

c. **Paraphrase:**
   Things **would be good** if he hadn’t gone to this demonstration, but given that he did go, things **would be less bad** if he hadn’t provoked the policemen.

This special property of *at least*-optatives should be kept in mind when looking for such constructions in different languages; clearly, *at least*-optatives require more context than *only*-optatives and may thus be less natural in an out-of-the-blue context.

Interestingly, there are languages that can only form optatives with ‘at least’ and not with ‘only’; these languages include Modern Greek, European Spanish, Brazilian Portuguese and Catalan, cf. (39)-(42). Notably, these languages all have a specialized optative marker as well, such as the Modern Greek particle *makari*, the European Spanish particle *ojalá* and the Catalan phrase *tant de bo* ‘as much of good’; Brazilian Portuguese does not seem to use such a specialized marker (Rafael Nonato, p.c.), but European Portuguese employs *oxalá*. The fact that languages with a specialized optative marker tend to form *if*-optatives with ‘at least’ rather than with ‘only’ might be more than a

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34 Note that reversing the order of (38a) and (38b) seems to lead to semantic and/or pragmatic ill-formedness. This may be due to different factors. On the one hand, *wenigstens* ‘at least’ seems to require a salient proposition that is better than what is wished for, and thus requires more context than *nur* ‘only’, which does not require such a salient alternative. On the other hand, it may be more natural to downgrade from a true wish to a compromise than to upgrade from a compromise to a true wish.
coincidence. In chapter 6.2, I will however derive the non-existence of (39a), (40a), (41a) and (42a) from an independent property of these languages: The non-existence of truth-conditionally vacuous only (which I will call ONLY2, in the spirit of Guerzoni 2003).

(39) a. ?* An mono o John iche akusi tin Mary! Modern Greek
   if only the John.nom had.3sg listened the Mary.acc
   ?* ‘If only John had listened to Mary!’
   b. An toulachiston o John iche akusi tin Mary!
   if at.least the John.nom had.3sg listened the Mary.acc
   ‘If John had at least listened to Mary!’

(40) a.* Si solo Juan hubiera escuchado a María! Europ. Span.
   if only Juan had.sub.past listened to Mary
   * ‘If only John had listened to Mary!’
   b. Si Juan hubiera al menos escuchado a María!
   if Juan had.sub.past at least listened to Mary
   ‘If John had at least listened to Mary!’

(41) a.* Se só / apenas o João tivesse ouvido a Maria! Braz. Port.
   if only only the John had listened to the Mary
   * ‘If only John had listened to Mary!’
   b. Se ao menos o João tivesse ouvido a Maria!
   if at.least the John had listened to the Mary
   ‘If John had at least listened to Mary!’

(42) a.* Si (en Joan) només / solament hagués escoltat (a) la Maria! Catalan
   if the John only only had.subj listened to the Mary
   * ‘If only John had listened to Mary!’
   b. Si (#en Joan) almenys hagués escoltat (a) la Maria!
   if the John at.least had.subjunctive listened to the Mary
   ‘If he / #John had at least listened to Mary!’

In sum, we have seen that the meanings of ‘only’, ‘but’ and ‘at least’ appear to be linked to optativity, which we need to explain. I propose an analysis in chapter 6; for now, I wish to provide another relevant piece of empirical evidence from diachrony.
Language change provides evidence that the link between ‘only’, ‘but’ and ‘at least’ on the one hand and optativity on the other hand is not coincidental. One of the most pervasive loan words in Southern European languages goes back to Middle Greek makárie ‘happy, favorable’, which is the vocative of makários (Diez 1887, as discussed and evaluated by Buchi 2008). While makari is still a productive optative particle in Modern Greek, shown in (43a), cognates exist in Italian, Romanian, Serbian, Slovenian, Old Spanish and Occitan. As shown in (43b+c), Romanian and Serbian still employ măcar / makar as optative particles. However, strikingly, Romanian măcar also has the meaning ‘at least, even’ and Serbian makar also has the meaning ‘at least’, cf. chapter 6.3. These meanings must have emerged after makárie ‘happy, favorable’ was loaned into these languages, suggesting a bi-directional link between optativity and ‘at least’.

(43) a. **Makari o** John na akusi tin Mary!  
**Modern Greek**  
MAKARI the John subj listened the Mary.acc  
‘If only John had listened to Mary!’

b. **Măcar** dacă ar fi ascultat-o!  
**Romanian**  
MACAR if opt be listened-her  
‘If only he had listened to her!’

c. Da je Jovan **makar** poslušao Mariju!  
**Serbian**  
that be.3sg John MAKAR listened Mary.acc  
‘If only John had listened to Mary!’

Evidence that the Romanian and Serbian developments are not historical accidents, but rather systematic, stems from Old Spanish maguer. After ojalá (a loan from Arabic, cf. Montero Cartelle 1992) replaced maguer in its function of optative particle, maguer acquired a new meaning as a concessive clausal complementizer maguer que ‘(al)though’ (Rudolph 1996, Buchi 2008). This provides evidence for a bi-directional relationship between optativity and the concessive meaning expressed by ‘but/though’, analogous to the relationship between optativity and ‘at least’.

35 In section 6.3, we also see evidence from Russian xotja ‘at least, although’ and Polish chociaż ‘at least, although’ that there is a connection between the meaning of at least and the meaning of although, though.
To summarize, the following types of particles can serve as optative particles, apparently turning a conditional antecedent into an if-optative: Particles that mean ‘only’, particles that mean ‘at least’, and particles that mean ‘but/though’. On the other side of the coin, designated optative markers like Middle Greek makárie ‘happy, favorable’ can be diachronically reanalyzed as particles that mean ‘at least’ or ‘but/though’, and possibly also as markers of ‘only’ (although we do not have evidence for the last). This indicates a strong bi-directional link between the expression of a wish (i.e. desirability) and the semantic field delimited by but, though, only and at least. The semantic part of this dissertation attempts to give a formal analysis of this link.

2.3 The Next of Kin – Introducing Polar Exclamatives

At this point, I introduce a different type of construction, which is relevant for the purposes of this dissertation in that it qualifies as the construction that is most similar to optatives (see also Scholz 1991), namely polar exclamatives. Polar exclamatives are utterances that express surprise, shock or amazement at a fact (not at the degree to which something holds) without a lexical item that means surprise, shock or amazement. While English only marginally allows for polar exclamatives and typically requires an overt modal should or could, as in (44), many Germanic languages employ such constructions quite freely, as illustrated in (45). (I will call constructions like (45) dass-polar exclamatives when focusing in German, or, more generally, that-polar exclamatives.)

(44) a. That he should have left without asking me! English
   b. That you could ever want to marry such a man!
      (Quirk et al. 1985:841)

(45) a. Att du hann till mötet! Swedish
      that you reached to meeting.DEF
      lit. ‘That you reached the meeting!’
      ≈ ‘(What a surprise) that you reached the meeting!’
      (Delsing 2010:32)
Polar exclamatives share the following properties with optatives. First, they can take the shape of unembedded \textit{that}-clauses (and V1-clauses, as we see below). Second, they are typically used to exclaim. Third, they intuitively involve a comparison between the expressed proposition and its polar opposite: In an optative, the denoted proposition is what I wish for, whereas its negation is what is the case; in a polar exclamative, the denoted proposition is what is surprisingly the case, whereas its negation is what I would have expected. In many regards, these similarities allow us to draw comparisons and fine-tune our analysis. Moreover, I propose in this dissertation that these similarities are not coincidental but reflect a core semantics that both types of utterances share.

Discussing optatives from the perspective of polar exclamatives also benefits from the fact that there is a large amount of literature on exclamatives (though mainly focusing on degree exclamatives), including McCawley (1973), Grimshaw (1979), Obenauer (1994), d’Avis (2002), Zanuttini & Portner (2003), Ono (2006), Castroviejo Miró (2006), Rett (2008), the papers in Villalba (2008), Abels & Vangsnes (2010), Delsing (2010), Jónsson (2010), Yamato (2010), Brandner (2010), Sæbø (2010), Abels (2010). Example (46) applies a diagnostic from Zanuttini & Portner (2003) to a German polar exclamative, verifying its status as an exclamative. As Zanuttini & Portner (2003:47) observe for degree exclamatives, the conveyed remarkability of the denoted proposition cannot be canceled in an exclamative. This is why the continuation in (46a) is ill-formed, contrasting with (46b) – the well-formedness of (46b) follows, as a canonical root declarative does not entail or imply remarkability.
(46) a. Dass der wieder verschlafen hat! – # was natürlich zu erwarten war. 
   That he again overslept has which naturally to be.expected was 
   lit. ‘That he overslept again!’ – # ‘Which was, of course, to be expected.’

   b. Der hat wieder verschlafen! – was natürlich zu erwarten war. 
   He has again overslept which naturally to be.expected was 
   ‘He overslept again!’ – ‘Which was, of course, to be expected.’

A further parallel between optatives and polar exclamatives that is worth considering 
concerns the possibility of V1-polar exclamatives (e.g. Oppenrieder 1987, 1989, and 
Batliner & Oppenrieder 1989), illustrated in (47). We note that V1-polar exclamatives 
differ from dass-polar exclamatives in that they require certain particles (such as doch or 
glatt ‘outrightly’). This does not challenge their existence though, given that there are 
optatives that require certain particles as well (e.g. only).

(47) a. Kennt der doch glatt den Kaiser von China! 
   knows he doch outrightly the emperor of China 
   ‘[I’m shocked that] he knows the emperor of China!’

   b. Dieser Bengel! Hat der doch (tatsächlich / wirklich / glatt) 
   this brat has he doch indeed really outrightly 
   wieder seine Zähne nicht mit Blendax-Antibelag geputzt! 
   again his teeth not with Blendax-anti-plaque cleaned 
   ‘This brat! [It’s shocking that] he didn’t clean his teeth with Blendax-anti-
   plaque again!’

   c. Hätte der dem doch tatsächlich das Buch gegeben! 
   had he him doch indeed the book given 
   ‘[I’m shocked that] he would have indeed given him the book!’

   d. Haben Sie doch (tatsächlich / wirklich) daran gedacht! 
   have you doch indeed really of.it thought 
   ‘[I’m amazed/surprised that] you really remembered it!’

   (Scholz 1991:132-133, attributing (47a) to W. Oppenrieder, (47c) to N. Fries)

As Scholz shows, minimal pairs of dass-polar exclamatives and V1-polar exclamatives 
can be constructed, illustrated in (48) and (49). Crucially, (48a) and (48b) seem to be
equivalent in their meaning (though we will see that there are some distributional differences); similarly, (49a) and (49b) seem equivalent.

(48) a. *indicative polar exclamatives*

\[ \text{Dass Sie (doch / tats"achlich / wirklich) daran gedacht haben!} \]

that you doch indeed really of.it thought have

‘[It’s remarkable] that you really remembered it!’

b. *indicative polar exclamatives*

\[ \text{Haben Sie doch (tats"achlich / wirklich) daran gedacht haben!} \]

have you doch indeed really of.it thought

‘[It’s remarkable] that you really thought of it!’

(based on Scholz 1991:132-133, attributing (48a) to W. Oppenrieder)

Example (49) illustrates that exclamatives can be in the subjunctive mood, without losing their factivity.

(49) a. *subjunctive (yet factive) polar exclamatives*

\[ \text{Dass die dem doch tats"achlich das Buch gegeben h"attte!} \]

that she him doch indeed the book given had

‘[It’s remarkable] that she would have indeed given him the book!’

b. *subjunctive (yet factive) polar exclamatives*

\[ \text{H"attte die dem doch tats"achlich das Buch gegeben h"attte!} \]

had she him doch indeed the book given

‘[It’s remarkable] that she would have indeed given him the book!’

(based on Scholz 1991:132-133)

If we add V1-degree exclamatives (cf. Rosengren 1992, Brandner 2010), we can establish the following paradigm of verb-initial exclamations in German. (I only marginally address degree exclamatives in this dissertation). One of the goals of this dissertation is to account for the distribution of V-to-C movement and different complementizers in exclamations, see chapter 5.
(50) a. Hätte er doch nur getanzt!  
   had he doch only danced  
   ‘Had he only danced!’ (‘I wish he had danced!’)

b. Hat der doch glatt getanzt!  
   has he doch outrightly danced  
   ‘[I’m shocked] that he danced!’

c. Hat der vielleicht getanzt!  
   has he maybe danced  
   ‘Boy, did he dance!’ (‘I’m amazed at the extent of his dancing!’)

A brief in-depth discussion of the status of V1-polar exclamatives is in place, as the existence of such clauses is highly controversial. While Scholz (1991) verges towards treating them as true exclamatives, authors as recent as Brandner (2010) assume that V1-polar exclamatives do not exist. In what follows, I address concerns that V1-polar exclamatives may be V1-questions or V2-declaratives with SpecCP deletion.

First of all, we can establish that V1-polar exclamatives in German are not pragmatically reinterpreted yes/no-questions (see also McCawley 1973, Goldberg & Del Giudice 2005 for a similar issue with respect to English V1-degree exclamatives). All of the examples in (47) contain doch, which can, but need not be stressed. Crucially, the distribution of unstressed doch is severely restricted in questions. Unstressed doch can only occur in certain types of rhetorical (speaker-directed) wh-questions, as in (51a), and is impossible in any type of yes/no-question, (51b). The impossibility of doch in yes/no-questions indicates that the utterances that I introduced as V1-polar exclamatives above are not pragmatically reinterpreted questions

(51) a. Wie bemerkt Goethe doch so treffend?  
   how remarked Goethe doch so fittingly  
   ‘What did Goethe say again that fits so well?’  
   (Thurmair 1989:117)

b. Hat Goethe das (denn / * doch) gesagt?  
   has Goethe that denn doch said  
   ‘Did Goethe say so?’

36 V1-polar exclamatives also marginally allow for the unstressed discourse particle ja (particularly in the string ja DOCH noch ‘after all’), which is impossible in all types of questions, including wh-questions.
A second challenge to establishing a class of V1-polar exclamatives stems from their distribution. It is commonly taken to be an argument against the existence of V1-polar exclamatives that the relevant examples are more restricted in their distribution than *dass*-polar exclamatives. The core example that is often cited is given in (52). The observation is that presumably exclamative V1-clauses can be integrated into a text, as in (52a), whereas *dass*-polar exclamatives cannot be, (52b).

(52) Ich fahre gerade in Eurasburg den Berg hinunter …
I cycle just in Eurasburg the hill down
‘I’m just cycling downhill in Eurasburg …’

a. … *Springt* mir doch glatt eine Katze ins Vorderrad.
jumps me doch outright a cat into the front wheel
‘[Shockingly] a cat jumps into my front wheel.’

b.# … *Daß* mir eine Katze ins Vorderrad *springt*!
that me a cat into the front wheel jumps
‘[It’s shocking] that a cat jumps into my front wheel.’


Interesting as this contrast may be, it does not show that such V1-clauses are not exclamatives. In sharp contrast to such a conclusion, V1-degree exclamatives, (53a), and *wh*-degree exclamatives, (53b), are both perfectly well-formed in such a context.

(53) Ich fahre gerade in Eurasburg den Berg hinunter …
I cycle just in Eurasburg the hill down
‘I’m just cycling downhill in Eurasburg …’

a. … *Ist* das vielleicht eine steile Fahrt!
is that maybe a steep ride
‘How steep a ride that is!’

b. … *Wie* steil das ist!
how steep that is
‘How steep that is!’

The possibility of (53a+b) falsifies an argument from (52a) against treating V1-polar exclamatives as exclamatives. (53) indicates that, in fact, (52b) is the puzzling case. For
some reason (which is beyond the scope of this project), *dass*-polar exclamatives resist being integrated into a discourse in a sense in which other exclamatives do not.

We can now turn to the strongest challenge for the existence of V1-polar exclamatives: The possibility that V1-polar exclamatives are simply declarative V2 clauses that contain an elided element in SpecCP position, a possibility pointed out by Scholz (1991), based on Oppenrödler (1989). (See also Altmann 1987.) The main candidate would be an elided semi-vacuous situational or temporal pronoun. This is illustrated in (54a+b), adapted from (47a+d).

(54) a. 〈Da〉 kennt der doch glatt den Kaiser von China!
there knows he doch outrightly the emperor of China
‘[I’m shocked that] he knows the emperor of China!’

b. 〈Jetzt〉 haben Sie doch (tatsächlich / wirklich) daran gedacht!
now have you doch indeed really of it thought
‘[I’m amazed/surprised that] you really remembered it!’

It proves difficult to show that this is not the right analysis, but we can consider different aspects of such V1-clauses, to see which view is supported by the facts. The core question to review is: Can we attest links between presumable V1-polar exclamatives and other types of established V1-clauses that may involve SpecCP deletion? Declarative V1-clauses in German (and other Germanic languages) include constructions exhibiting *narrative inversion* (cf. Sigurdsson 1990), (55a), and constructions involving *topic drop* (cf. Cardinaletti 1990, Mörmstjö 2001), (55b).

(55) a. Kommt da plötzlich ein Kerl herein. *German narrative inversion*
comes then suddenly a guy inside
‘Suddenly, a guy enters.’
(Önnerfors 1997a:299, from Behagel 1932:38)

b. Kommt der Hans? – Kenn ich nicht. *German topic drop*
comes the Hans know I not
‘Is Hans coming? – I don’t know him.’

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37 Or an expletive element *es* ‘it’, as advocated by Altmann (1987) for V1-clauses of the ‘narrative inversion’ type. I take this to be rather implausible in the examples under discussion.
In both cases, it is conceivable that an element in SpecCP has been elided (though Önnerfors 1997a advocates a view where narrative inversion clauses are *true V1 clauses*\(^{38}\)), cf. Holmberg (2010).

\[(56)\]
\[a. \langle \text{Dann} \rangle \text{kommt da plötzlich ein Kerl herein.} \]
then comes there suddenly a guy inside

‘Suddenly, a guy enters.’

\[b. \text{Kommt der Hans? – } \langle \text{Den} \rangle \text{ ken ich nicht.} \]
comes the Hans him know I not

‘Is Hans coming? – I don’t know him.’

So, the first question to ask is whether purported V1-polar exclamatives fall into one of these two categories, i.e. whether they are instances of narrative inversion or topic drop. If they cannot be argued to fall into either category, this weakens a view that assumes SpecCP-deletion in German V1-polar exclamatives, given that empty SpecCP positions are restricted in German, a verb second language.

We can first argue against a *topic drop* analysis of V1-polar exclamatives. First, as illustrated in (57), topic drop is licensed in the response to a question.

\[(57)\]
\[a. \text{Kommt der Hans? – } (\text{Den}) \text{ ken ich nicht.} \]
comes the Hans him know I not

‘Is Hans coming? – I don’t know him.’

\[b. \text{Wie findest du das Flex? – } (\text{Da}) \text{ bin ich noch nie gewesen.} \]
how find you the Flex there am I yet never been

‘How do you like Flex (a club)? – I’ve never been there.’

\[c. \text{Was passiert dann? – } (\text{Dann}) \text{ schlägt der Otto dem Hans ins Gesicht.} \]
what happens then then hits the Otto the Hans in.the face

‘And what happens then? – Then Otto punches Hans into his face.’

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\(^{38}\) See also Axel & Wöllstein (2008) and Reis & Wöllstein (2010) for a discussion of V1-clauses in German.
Example (58a) illustrates a potential V1-polar exclamative, accompanied by example (58b), which may be the (elliptical) V2-declarative that underlies the surface form in (58a).

(58)  
I enter my dorm room to find my hamster cage empty. I remember my room mate threatening to sell my hamster if I ever play loud music again late at night.

a. Hat der jetzt doch tatsächlich meinen Hamster verkauft!!
has he now doch indeed my hamster sold
‘[I’m shocked that] he sold my hamster for real!’

b. (Da) hat der jetzt doch tatsächlich meinen Hamster verkauft!!
there has he now doch indeed my hamster sold
‘[I’m shocked that] he sold my hamster for real!’

The crucial data are given in (59). As shown, (59-B3), which is identical to the polar exclamative in (58a), with an empty SpecCP position, is infelicitous in response to a question. This contrasts with (59-B1) and (59-B2), where jetzt ‘now’ and da ‘there’ occupy SpecCP.

(59) A: Was gibt’s neues von der Mitbewohner-Front?
what gives’it new from the roommate-front
‘Are there any news from the roommate front?’

B1: Jetzt hat der jetzt doch tatsächlich meinen Hamster verkauft!!
now has he now doch indeed my hamster sold
‘He now sold my hamster for real!’

B2: Da hat der jetzt doch tatsächlich meinen Hamster verkauft!!
there has he now doch indeed my hamster sold
‘He now sold my hamster for real!’

B3: #Hat der jetzt doch tatsächlich meinen Hamster verkauft!!
has he now doch indeed my hamster sold
# ‘[I’m shocked that] he sold my hamster for real!’

The pattern in (59) is unexpected if (59-B3) is derived from (59-B1) or (59-B2) by means of topic drop, since we know that topic drop is fine in response to a question, (57). We

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39 A similar argument is made for V1-degree exclamatives by Brandner (2010).
need to control for the following two possible confounds. First, one might suspect that situational pronouns like *da* ‘there’ cannot be dropped by means of *topic drop*. As shown in (60-B2), derived from (60-B1), this concern is unwarranted. (60-B2) is a non-exclamative declarative, expressing the same proposition as (59-B3); however, topic drop is possible here and arguably what underlies the utterance in (60-B2).

(60) A: Was gibt’s neues von der Mitbewohner-Front?
   ‘Are there any news from the roommate front?’

   B1: Da hat sich jetzt nicht viel getan in letzter Zeit.
   ‘Not much happened lately!’

   B2: Hat sich jetzt nicht viel getan in letzter Zeit.
   ‘Not much happened lately!’

The second confound that we need to address, particularly in contrasting (59-B3) and (60-B2), is the following. Could it be that emphatic declaratives (i.e. declaratives that include *doch tatsächlich*) are generally ill-formed in response to questions? The example in (61) (which lacks the ‘exclamative feel’ of (58b)) suggests that this may not be the case, corroborating a view that V1-polar exclamatives do not involve topic drop (though there are naturally open questions, such as why a topic drop analysis seems to be blocked in (59-B3)).

(61) Was passiert dann? – *(Dann)* schlägt *doch tatsächlich* der Otto dem Hans
    ‘And what happens then? – Then Otto punches Hans into his face.’

Such observations suggest that V1-polar exclamatives are not derived from V2 declaratives by means of topic drop. Can we also rule out the option that V1-polar
exclamatives are a type of narrative inversion (modulo the possibility that narrative inversion involves something along the lines of topic drop)? Viewing V1-polar exclamatives as a type of narrative inversion is supported by Önnerfors’s (1997b) observation that narrative inversion is also bad in response to questions, (62-B3).

(62)  

A: Was war los?
   what was up
   ‘What happened?’

B1: Da stand plötzlich ein Mann vor der Tür.
    there stood suddenly a man before the door
    ‘Suddenly, there was a man standing in front of the door.’

B2: Es stand plötzlich ein Mann vor der Tür.
    it stood suddenly a man before the door
    ‘Suddenly, there was a man standing in front of the door.’

B3: ?? Stand plötzlich ein Mann vor der Tür.
    stood suddenly a man before the door
    ‘Suddenly, there was a man standing in front of the door.’

(Önnerfors 1997b:51)

Furthermore, narrative inversion and (V1-)polar exclamatives can occur in an out-of-the-blue context, which is generally not possible for topic drop constructions. This is a further argument for grouping V1-polar exclamatives with narrative inversion, and against treating V1-polar exclamatives as topic drop constructions.

However, the following examples suggest one fundamental difference between polar exclamatives and narrative inversion. As Önnerfors (1997a) observes, narrative inversion exhibits a ban on generic statements, shown in (63), which contrast with typical (episodic) narrative inversion cases such as (64).

(63)  
a.* Sind Kritiker Idioten. / ✓ Kritiker sind Idioten.
   are critics idiots critics are idiots
   ‘Critics are idiots.’ (Önnerfors 1997a:306)

b.* Weinen Kinder leicht. / ✓ Kinder weinen leicht.
   cry children easily children cry easily
   ‘Children cry easily.’ (Önnerfors 1997a:307)
(64) a. Kommt Fritzchen in die Apotheke.  
    comes Fritz-little into the pharmacy  
    ‘Little Fritz comes into the pharmacy.’ (from a joke, Önnerfors 1997a:293)

b. Regnet es da plötzlich ins Haus.  
    rains it then suddenly into-the house  
    ‘Suddenly, it’s raining into the house.’ (Önnerfors 1997a:302)

Önnerfors presents the examples without context, but even in a context where a generic statement should be possible with narrative inversion, this ban can be observed. In example (65a), narrative inversion occurs in the second clause; (65b) is comparable in terms of the situation that is discussed. However, (65b) does not allow for narrative inversion; the baseline example of a verb second declarative in (65c) is acceptable.

(65) a. Gestern treffe ich einen Kritiker und eine Journalistin. Ist / Wird  
    yesterday meet I a critic and a journalist is becomes  
    der Kritiker aggressiv. Sagt die Journalistin: “Der ist immer so.”  
    the critic aggressive says the journalist he is always thus  
    ‘Yesterday I meet (narrative present) a critic and a journalist. The critic is / starts to be aggressive. The journalist says: “He’s always like that.”’

b. Ich habe letztes Jahr viele Kritiker und Journalisten getroffen.  
    I have last year many critics and journalists met  
    *Sind/*Werden Kritiker (immer) aggressiv.  
    are/become critics always aggressive  
    ‘I met many critics and journalists last year. Critics are always / always get aggressive.’

c. Ich habe letztes Jahr viele Kritiker und Journalisten getroffen.  
    I have last year many critics and journalists met  
    Kritiker sind/werden (immer) aggressiv.  
    critics are/become always aggressive  
    ‘I met many critics and journalists last year. Critics are always / always get aggressive.’

In contrast, polar exclamatives (on a par with degree exclamatives) do not exhibit such a ban against generic statements. This is shown for polar exclamatives in (66).
(66) a. Haben diese Tiere doch glatt vier Beine!  

   have these animals doch outright four legs  
   ‘[It’s remarkable that] these animals have four legs!’

   b. Mensch, sind Kritiker doch tatsächlich Idioten!  

   man are critics doch indeed idiots  
   ‘Man, [it’s shocking that] critics are really idiots!’

It is also shown for degree exclamatives in (67).

(67) a. Haben diese Tiere aber viele Beine!  

   have these animals but many legs  
   ‘How many legs these animals have!’

   b. Mensch, sind Kritiker vielleicht Idioten!  

   man are critics maybe idiots  
   ‘Man, what idiots critics are!’

We can thus conclude that German V1-polar exclamatives do not fall into one of the two well-established categories of V1 declarative clauses, clauses with topic drop and clauses with narrative inversion. On one hand, while topic drop is fine in response to a question, polar exclamatives are not. On the other hand, while narrative inversion exhibits a ban against generic predicates, polar exclamatives (and degree exclamatives) do not. This suggests that V1-polar exclamatives are not simply declaratives with an elided element in SpecCP, corroborating the view that V1-polar exclamatives exist.

A final argument against treating V1-polar exclamatives as some type of declarative can be based on the fact that exclamatives imply the remarkability of the denoted proposition, which is not necessarily the case in declaratives. This diagnostic is slightly confounded by the obligatoriness of particles (such as doch, tatsächlich ‘indeed’ etc.) in V1-polar exclamatives, which by themselves have an expressive function. However, to the extent that an effect can be observed, it reproduces the effect in (46). In the presumable polar exclamative case in (68a), remarkability seems to be entailed in some way or other, whereas in (68b+c) it can be canceled.
This further corroborates the claim that V1-polar exclamatives are not simply a type of V1-declarative.

An open question (at this point) is whether V1-polar exclamatives have a null operator in SpecCP (e.g. Zwart 1993, Brandner 1994), (69a), or whether they are genuine V1-clauses, (69b). The latter view is advocated quite generally for German V1 clauses in Önnerfors (1997b); more recently, Axel & Wöllstein (2008) and Reis & Wöllstein (2010) argue for the existence of genuine V1 clauses in German, which lack a CP specifier altogether. I will not dwell on this matter, as it is not crucial to the present project. However, I will briefly come back to the question of what fills the SpecCP position in V1-exclamations in later sections.

To conclude, I have established in this section that there is a type of V1-polar exclamatives, which seems distinct from V1 declaratives involving topic drop and narrative inversion type. While there are many questions that remain unanswered, given the scope of this project, I will henceforth assume that there are that-polar exclamatives as well as V1-polar exclamatives. I consider these to be close relatives of that-optatives
and V1-optatives, as both construction types are exlamations of sorts, and both involve an implicit comparison between the denoted proposition and its polar opposite.

2.4 Interim Summary

In this chapter, three goals have been achieved. Section 2.1 has delimited the scope of this research project and established a common ground that will provide the background for the entire dissertation. Section 2.2 has affirmatively addressed the most basic of all questions, which is whether optatives constitute a phenomenon at all. The alternative that optatives are merely idiomatic/formulaic expressions has been discarded. A view has been established under which optatives are specialized utterances that have certain prototypical properties, e.g. the presence of an optative particle. It has also been shown that the set of elements that can serve as optative particles minimally includes elements that mean ‘only’, ‘at least’ and ‘but/though’. It has been demonstrated that such particles seem to be in a bi-conditional relationship with optativity (i.e. particles that mean ‘only’, ‘at least’ and ‘but/though’ can give rise to optativity and designated optative markers can be reanalyzed as particles that mean ‘at least’, ‘but/though’ or ‘only’). Section 2.3 has broadened the scope of this project slightly, to include polar exclamatives, which can be viewed as the ‘next of kin’ to optatives: They are intuitively exclamations, they operate on polar opposites and they have a similar shape and form to optatives. Starting out with a discussion of that-polar exclamatives, I have argued for the existence of V1-polar exclamatives – a controversial matter largely neglected in recent literature.
3. The Core Analysis: A System for Analyzing Exclamations

This chapter gives a complete overview of the system developed in this dissertation. It starts with a bird’s-eye view of my proposal and then proceeds with a more detailed discussion.

3.1 The EX-Op Analysis: A Bird’s-Eye View

3.1.1 The Aim of this Project

I henceforth focus on German – a heuristic strategy, given that German has a richer paradigm of optatives than English, cf. (70)+ (71), and German further allows for polar exclamatives much more freely, (72). The aim of this project is to push the idea that we can account for the constructions in (70) and (71) in a uniform way. Specifically, I propose a shared core semantics that underlies all of these constructions rather than relying on extra-linguistic, pragmatic mechanisms to give meaning to them. What we need to derive is the fact that the examples in (70a-c) seem to express an emotion that can be paraphrased as in (70d).

(70) subjunctive (and counterfactual) optatives

a. Daß er nur rechtzeitig gekommen wäre!
   that he only in.time come were

b. Wenn er nur rechtzeitig gekommen wäre!
   if he only in.time come were

c. Wäre er nur rechtzeitig gekommen twäre!
   were he only in.time come ‘If only he had come in time!’

d. paraphrase: I wish [he had come in time].

Similarly, we aim to derive the fact that the examples in (71a+b) seem to express an emotion that can be paraphrased as in (71c).
The goal of a semantic (and syntactic) theory is to derive complex and seemingly unrelated phenomena from simple principles, which can then be considered explanatory (von Stechow 1984; cf. Champollion 2010 for recent discussion). It thus seems appealing to posit a system that not only accounts for (70)+(71) in a uniform way, but also for the polar exclamatives in (72a+b), which seem to express the emotion paraphrased in (72c).

I propose a system that uniformly derives all three construction types. The core idea is given in the next section.

### 3.1.2 The System in a Nutshell

I propose that optatives and (polar) exclamatives contain a null operator, which takes the denoted proposition as its complement and serves to express an emotion towards the denoted proposition. I call this operator $EX$ (mnemonic for expressive and exclamative). $EX$ is loosely inspired by Gutiérrez Rexach’s (1996) $EXC$ operator, but retains little similarity to $EXC$. Consider first the utterance in (73a); this exclamation is ambiguous.
between an optative reading, (73b), and an exclamative reading, (73c); context disambiguates.

(73) a. Mein Gott, dass der nicht verschlafen hat!
    my God that he not overslept has
    lit. My God, that he didn’t oversleep!

b. paraphrase of optative reading: I hope [that he didn’t oversleep].

c. paraphrase of exclamative reading: I’m shocked [that he didn’t oversleep].

I propose that both (73b) and (73c) share the same core semantic, sketched in (74) (ignoring the interjection Mein Gott ‘my God’ – I will come back to such elements in section 4.1.8). The idea is that EX simply conveys that the modified proposition is high on a scale, and the scale is provided by the context, formalized as a contextually given scale argument Scale_c (or simply S), (74a+b).

(74) a. LF for (73): [[EX Scale_c] dass der nicht verschlafen hat]!
    that he not overslept has

b. EX(Scale_c)(p) conveys that p is above a contextually given threshold on Scale_c.

We can now derive both readings of (73) without assuming different LF structures. The optative reading arises if the context provides a (speaker) preference scale (or desirability scale), as shown in (75). The contextually salient threshold ξ on a desirability scale plausibly corresponds to the cut-off line between intolerable circumstances (which are lower / less desirable) and tolerable circumstances (which are higher / more desirable). Therefore, by uttering (75), I express my desire or hope that he (some contextually salient person) didn’t oversleep by virtue of marking circumstances in which he didn’t oversleep as tolerable.

(75) optative reading

[[EX Scale_speaker-preference] [that he didn’t oversleep]]
≈ The desirability of [p he didn’t oversleep] exceeds a contextually salient threshold ξ.
Correspondingly, it is plausible that the exclamative reading of (73) arises from a (speaker) inverse likelihood scale\(^{40}\) (or surprise scale), as shown in (76). Again, the contextually salient threshold $\xi$ on an inverse likelihood can be assumed to correspond to the cut-off line between what is not surprising (lower / more likely) and what is surprising (higher / more unlikely). By uttering (76), I express an emotion towards the prior unlikelihood of his not having overslept; again, I do so by virtue of marking circumstances in which he didn’t overslept as unlikely / surprising.

(76) polar exclamative reading

\[
\text{[[EX Scale}_{\text{speaker-likelihood}} [\text{that he didn’t oversleep}] ]} \\
\approx \text{The prior unlikelihood of } [p \text{ he didn’t oversleep}] \text{ exceeds a contextually salient threshold } \xi.
\]

Crucially, \(EX\) does not encode mood information, which allows us to uniformly analyze all of the examples in (70)-(72), given in (77)-(79). One part of this dissertation (chapter 5) is dedicated to the question of how mood enters the picture. (On a different note, I argue that particles such as \textit{only} are not lexicalizations of \(EX\). Chapter 6 is dedicated to an analysis of the role of particles in exclamations.) The LF representations of different optatives are given in (77) and (78)\(^{41}\).

(77) subjunctive (and counterfactual) optatives

a. \(\text{[EX Scale }_{\text{speaker-preference}} \text{ [Daß er nur rechtzeitig gekommen wäre]}!}\)

\hspace{1cm} \text{that he only in.time come were}

b. \(\text{[EX Scale}_{\text{speaker-preference}} \text{ [Wenn er nur rechtzeitig gekommen wäre]}!}\)

\hspace{1cm} \text{if he only in.time come were}

\(^{40}\) Given that we encounter many language-specific idiosyncracies, it is an open question what the complete range of scales is that an \(EX\) operator can associate with. As discussed in section 4.1.3.4, we minimally find \(EX\) utterances that express desirability, undesirability and surprise. This is covered by my proposal that \(EX\) utterances serve to convey emotion, i.e. they cannot convey a non-emotive attitude, such as certainty. It is however not clear whether there are languages that use \(EX\) utterances to express boredom / ennui (which we would expect to by possible, as it is an emotion). If such languages do not exist, the relevant restriction may derive from extra-linguistic universals, as envisioned by Fries (1991) and Rosengren (1993).

\(^{41}\) I discuss the distribution of complementizers and (V-to-)T-to-C movement in chapter 5.
c. \([\text{EX Scale}_{\text{speaker-preference}} \ [\text{Wäre er nur rechtzeitig gekommen \text{twäre}}]! \]
were he only in.time come
‘If only he had come in time!’

(78) \textit{indicative optatives}

a. \([\text{EX Scale}_{\text{speaker-preference}} \ [\text{Daß er nur rechtzeitig \text{kommt}}]! \]
that he only in.time comes

b. \([\text{EX Scale}_{\text{speaker-preference}} \ [\text{Wenn er nur rechtzeitig \text{kommt}}]! \]
if he only in.time comes
‘If only he comes in time!’

In the same vein, the LF representations for polar exclamatives are given in (79). Recall that the left peripheries in optatives and polar exclamatives do not differ in their semantics. The \textit{Scale} argument is simply a variable, with its content provided by the context. The subscripted \textit{speaker-preference} in (77)+(78) or \textit{speaker-unlikelihood} in (79) are merely included for expository purposes, to indicate to the reader which contextual assignment is intended.

(79) \textit{indicative polar exclamatives}

a. \([\text{EX Scale}_{\text{speaker-unlikelihood}} \ [\text{Daß Sie doch tatsächlich daran gedacht \text{haben}}]! \]
that you doch indeed of.it thought have

b. \([\text{EX Scale}_{\text{speaker-unlikelihood}} \ [\text{Haben Sie doch tatsächlich daran gedacht \text{thaben}}]! \]
have you doch indeed of.it thought
‘[It’s remarkable] that you really remembered it!’

The general structure of this dissertation is as follows. Chapter 4 focuses on the \textit{EX} operator, motivating its existence and exploring its implicatures. Chapters 5 and 6 focus on the properties of propositions in the scope of \textit{EX}, e.g. how does complementizer selection work (in chapter 5)? And what do particles contribute (in chapter 6)? I will now give a more detailed summary of the proposal in section 3.2. Before I do so, let me discuss more general motivation for an \textit{EX} operator. By asking for the reason of why \textit{EX} exists, we move ‘beyond explanatory adequacy’, exploring the question of \textit{why} language has the properties that we encounter when we study it, rather than simply investigating these properties (Chomsky 2001, cf. Champollion 2010 for a recent discussion).
3.1.3 On the Cognition–Emotion Dichotomy

In psychology and the neurosciences, we find a traditional distinction between cognition (higher-order processes, including memory, attention, problem solving and planning) and emotion/affect (phenomena such as motivation, evaluation and feeling); see Pessoa (2008) for a recent review, see also Izard (2009) for an overview. While recent research indicates that emotion and cognition cannot be treated as separate modules in the brain (e.g. Phelps 2006, Pessoa 2008), it is rather uncontroversial that human behaviors have both cognitive and affective component. In other words, human behavior has a cognitive dimension and an emotional/affective dimension (which are not necessarily orthogonal or separable).

The idea that I pursue was pioneered in Rosengren (1992, 1993), based on the ideas of Fries (1991), though my analysis differs fundamentally from Rosengren’s proposal. I argue that EX-utterances are, strictly speaking, expressive utterances and thus distinct from regular statements, which are descriptive utterances. I define expressive utterances as utterances that serve to directly express an emotional or affective state; they are thus either felicitous or infelicitous in a given context, but not true or false. An (informal) example is given in (80).

(80) An utterance of “If only John had come in time” is felicitous iff the (counterfactual) proposition John came in time is ranked above a contextually salient threshold on the speaker’s preference/desirability scale.

In contrast, descriptive utterances, the more familiar type, are utterances that express a truth value. An (informal) example is given in (81).

(81) ||I wish John had come in time||c is true iff the (counterfactual) proposition John came in time is ranked above a contextually salient threshold on the speaker’s preference/desirability scale.

The core idea is that expressive utterances are linked to emotion/affect in the same way in which descriptive utterances are linked to cognition; uttering an optative or a (polar) exclamative is an emotional/affective behavior, whereas uttering a declarative statement
is a cognitive behavior. The only core differences between the two utterance types is that expressive utterances contain an EX operator, which descriptive utterances lack. (EX combines with a truth-conditional statement and yields a felicity-conditional utterance.) This close connection between the two utterance types is unsurprising given the interconnectedness of cognition and emotion in the human brain. A schematic summary of the proposal is given in (82).

(82) Broader Cognition:

Grammar:

Notably, the effects of expressive utterances and descriptive utterances can be quite similar, specifically when a descriptive utterance doubles as the paraphrase of an expressive utterance, in the sense in which (84a+b) correspond to (83a+b) respectively.

(83)  expressive utterance (EX is present)

a. Boy, is this easy!  ⇒ expresses surprise
b. If only it was easy!  ⇒ expresses my desire

(84)  descriptive utterance (EX is absent)

a. I am surprised at how easy this is.  ⇒ describes surprise
b. I wish that it was easy.  ⇒ describes my desire

The relation between (83) and (84) is analogous to the relation between (85a) and (85b).

(85)  a. That asshole John is now coming to my party!  ⇒ expresses dislike
b. I hate John and he’s now coming to my party.  ⇒ describes dislike

To locate this system in a broader context, it can be observed that the distinction between truth conditions and felicity conditions that I posit directly inherits the distinction between descriptive and expressive meaning found in Kratzer (1999), Potts (2005) and related work.
Summarizing this section, there is a non-linguistic motivation for the existence of an EX operator, which is the perceived need to sometimes directly express an emotion or affective state (e.g. by saying DAMN!) rather than just describe it (e.g. by saying I am unhappy right now). The distinction between expressive EX-utterances and descriptive EX-less utterances serves exactly this purpose.

3.1.4 The Views of Others: How to classify this type of analysis

Before moving on to a brief in-depth discussion of my proposal, it is worth considering the broader context in which it is situated. Let me first review some background on clause types (ways of categorizing different sentence forms according to their function). Grammarians of German and English differ in their views on clause types42 (see Bach & Harnish 1979, Sadock & Zwicky 1985). One of the most wide-spread views assumes that there are three universal clause types (or sentence types/moods): declaratives, interrogatives and imperatives, given in (86a-c). This view has been advocated in Bierwisch (1980), Altmann (1987), Brandt et al. (1992), and more recently Portner (2005, 2007). Alternative views (particularly for English) assume that exclamatives are also a basic clause type (or major clause type), cf. Nelson (2001 [2011]), given in (86d). Other scholars (particularly for German) assume that exclamatives and optatives, (86d)+(86e), are also basic clause types, e.g. Scholz (1991), see also Önnerfors (1997ab) (for German) and Lyons (1995) (for English). Some proponents of the view that there are three universal clause types categorize exclamatives and optatives as minor clause types (e.g. Akmajian et al. 2001).

(86) a. declaratives: Mary was quiet.
   b. interrogatives: Was Mary quiet? / How quiet was Mary?
   c. imperatives: Be quiet!
   d. exclamatives: Boy, was Mary ever quiet! / How very quiet Mary was!

42 I limit the scope of this discussion to declaratives, interrogatives, imperatives, exclamatives and optatives. Cross-linguistically, scholars have also argued that hortatives and jussives are basic clause types. I will not be addressing these.
e. *optatives:* If only Mary were quiet!

Crucially, *clause type* is, without further formalization, a purely descriptive concept, as the classification of a clause $\sigma$ as being of clause type $\tau$ does not derive anything apart from summarizing $\sigma$’s properties as a member of category $\tau$ (see also Schwager 2006 for a relevant discussion of clause types).

However, it is worth noting that the existence and special status of exclamatives and optatives has been noted, so the question arises how to best account for the form-function pairing that such utterances exhibit. What my proposal achieves is a minimal account for such “minor clause types”, which essentially assumes that there are utterances (those that contain $EX$) that directly express an emotion, whereas there are utterances (those that lack $EX$) that do not. This system can easily be extended to novel utterance types, such as (87), which serves to express disgust or dislike and might be aptly called an *adversative*; (87) can be transparently treated as an $EX$ utterance with an inverse *desirability* scale.

(87) Mein Gott! Der Olaf! Wenn ich den schon sehe!  
my God the Olaf if I him already see  
lit. ‘My God! Olaf! If I just see him!’  
≈ ‘It makes me sick [if I see Olaf]!’  
(Scholz 1991:48, translation and paraphrase is mine)

The system is schematically summarized in (88).

(88) *Schema of the EX-Hypothesis*  
Utterances without EX ➔ declarative statements, etc.  
Utterances with EX ➔ optatives  
  ➔ polar exclamatives  
  ➔ ‘adversatives’ ([I hate it] if …)  
  …
By arguing for such a view, I argue against a view that assumes more idiosyncratic pairings of form and function, as schematized in (89).

(89)  Schema of other Hypotheses (which are rather ‘taxonomical’ / ‘cartographical’)

- Default declarative use ➔ declarative statements, etc.
- Trigger for DESIRE ➔ optatives
- Trigger for SURPRISE ➔ polar exclamatives
- Trigger for DISLIKE ➔ ‘adversatives’ ([I hate it] if …)

One view that assumes a system as in (89) is the matrix clause deletion approach to root uses of apparently embedded clauses (Evans 2007). Such an approach assumes that (90a) is underlyingly (90b) under its polar exclamative reading, whereas it is underlyingly (90c) under its optative reading; in each case, the elided material is assumed to be structurally represented and present at LF.

(90)  

a. Mein Gott, dass der nicht verschlafen hat!
    my God that he not overslept has  
    lit. My God, that he didn’t oversleep!

b. that-polar exclamative
    Mein Gott, [es überrascht mich, dass der nicht verschlafen hat]!
    my God it surprises me that he not overslept has  
    ‘My God, I’m surprised that he didn’t oversleep!’

c. that-optative
    Mein Gott, [ich hoffe, dass der nicht verschlafen hat]!
    my God I hope that he not overslept has  
    ‘My God, I hope that he didn’t oversleep!’

I argue against the matrix clause deletion approach on empirical grounds in chapter 4.1.4.

Another approach that may be viewed as representing schema (89) assumes that optativity (and, presumably, exclamativitity) is derived in the pragmatics by virtue of being appropriate responses to a specific Question Under Discussion (Biezma 2011ab).
review such an approach in section 4.2. In this case, each reading comes about as response to a specific Question Under Discussion (which thus serves as a specific trigger for that reading). Such a view can be roughly illustrated as in (91) (my rendering of Biezma 2011ab).

(91) a. Question Under Discussion (implicit to the discourse, not explicitly stated):
   How do we get to catch the bus in time?
   
   b. Appropriate Partial Answer:
   Wenn er nur nicht verschlafen hat!
   if he only not overslept has
   ‘If he only didn’t oversleep!’
   \[ \Rightarrow \text{that he didn’t oversleep} \] is a good means to achieve our goals.
   \[ \Rightarrow \text{that he didn’t oversleep} \] is desirable. (Optativity is derived.)

A view advocated in Zaefferer (2006), and also in Grosz (2011) is that the meanings of optatives (and polar exclamatives) correspond to conventionalized uses of the that-, if- or V1-clauses that are uttered. In other words, we are dealing with conventionalized speech acts. I view the present system as a generalized implementation of such a view; the EX-operator determines the use of the denoted proposition, namely to express an emotion, and the scale that it associates with fine-tunes which emotion is expressed. It is easy to see how my approach captures the intuitions underlying a Conventionalized Speech Act approach, as sketched in (92). If we decompose the speech acts in (92b) and (92c) into an EXPRESS.X component and a \{X = \text{DESIRE}, X = \text{SURPRISE}\} component, it is easy to see that the EXPRESS.X part is captured by EX, whereas the \{X = \text{DESIRE}, X = \text{SURPRISE}\} part is captured by positing a contextually assigned scale argument.

(92) a. Mein Gott, dass der nicht verschlafen hat!
   my God that he not overslept has
   lit. My God, that he didn’t oversleep!
   
   b. optative rule: utterance of [that-clause] \[ \Rightarrow \text{EXPRESS.DESIRE} \]
   
   c. exclamative rule: utterance of [that-clause] \[ \Rightarrow \text{EXPRESS.SURPRISE} \]
Finally, we can conceive of an approach that assumes (in line with ideas presented in Rifkin 2000) that the prototypical particles that we find in optatives and exclamatives (which may be covert if there are none) are *illocutionary force modifiers* (building on Jacobs 1991). Such a view is sketched in (93), where *doch* is assumed to be responsible for turning (93a) into an expression of a wish, plausibly by means of the process in (93b).

(93) a. Wenn er *doch* rechtzeitig gekommen wäre!
   *if* he *doch* in.time *come* *were*  
   ‘If only he had come in time!’

   b. Speech act modification:

      An utterance of *doch*[if p] has by virtue of the meaning of *doch* (analyzed as a speech act modifier) a use of expressing a wish [that p].

I present arguments against such an approach in chapter 6, by discussing the role of particles in optatives (and polar exclamatives); I argue that particles essentially act as modulating and disambiguating elements, thus determining speech acts only indirectly.

To conclude this section, I have argued for a system of the type that is summarized in (94), omitting analysis-specific details.

(94) *The Exclamation-Operator Hypothesis (The EX-Op-Hypothesis):*

   Optatives, exclamatives and related utterances involve an operator EX (mnemonic for exclamation) that combines with a truth-conditional statement and turns it into a felicity-conditional *expression of an emotion*.

I argue against views that assume optativity or exclamativity to arise on a case-by-case basis, e.g. due to individualized triggers, such as an *optative-triggering particle*. In global terms, such a view can be summarized as follows.

(95) *The Hypothesis of Expressive Conspiracies (The Ex-Con-Hypothesis):*

   Optatives, exclamatives and seemingly related utterances are actually completely unrelated, and their meanings arise on a case-by-case basis, either for pragmatic reasons or due to grammaticalized triggers.
Notably, the Ex-Con-Hypothesis does not inherently posit any meaningful relationship between the *that*-optative in (96a) and the *if*-optative in (96b). It is quite possible under an Ex-Con view that the meaning of (96a) comes about in ways fundamentally different to how the meaning of (96b) comes about. By contrast, according to the EX-Op-Hypothesis, the two utterances are quasi-identical, modulo the different (semantic) mood information potentially associated with *wenn* ‘if’ as opposed to *dass* ‘that’ (cf. chapter 5).

(96) a. **Daß** er nur rechtzeitig gekommen **wäre**!
   that he only in.time come were
   ‘If only he had come in time!’

   b. **Wenn** er nur rechtzeitig gekommen **wäre**!
   if he only in.time come were
   ‘If only he had come in time!’

Similarly, there may be renderings of the Ex-Con-Hypothesis under which some or all of the examples in (97a-c) are unrelated to each other, given that they contain different particles, which may trigger different uses. Again, an EX-Op-Hypothesis assumes that the core meanings of (97a-c) are identical, modulo fine-tuning by virtue of the particles.

(97) a. **Wenn** er **nur** rechtzeitig gekommen **wäre**!
   if he only in.time come were
   ‘If only he had come in time!’

   b. **Wenn** er **doch** rechtzeitig gekommen **wäre**!
   if he doch in.time come were
   ‘If only he had come in time!’

   c. **Wenn** er **wenigstens** rechtzeitig gekommen **wäre**!
   if he at.least in.time come were
   ‘If only he had come in time!’

Having thus presented the big picture, as pertains to my dissertation, I now proceed to present a close-up summary of my proposal in a nutshell.
3.2 The EX-Op Analysis: A Worm’s-Eye View

3.2.1 In a Nutshell

The previous system presented the core idea underlying this dissertation project. In this section, I present a summary of the entire analysis, focusing on a limited set of examples and how to derive them. Motivating assumptions and exploring their implications need not concern us now; this will be the main subject of investigation in the subsequent chapters, 4, 5 and 6. Consider first the utterance in (98).

(98) If only I had brought a sandwich!

To derive the wish that (98) expresses, I propose a system that has three main ingredients: an operator EX, as discussed in section 3.1; Mood features that are located in C and responsible for the choice of complementizer (here: if); and a semantic analysis for different particles (here: only). Schematically, the derivation is given in (99). The role of EX is to combine with a truth-conditional expression of type <s,t> (i.e. a proposition) and map it onto felicity conditions that capture the speaker’s attitude towards that proposition. As for Mood features and particles, I propose that they are purely presuppositional; they are truth conditionally vacuous (i.e. if defined they denote the function λp.p). On the presuppositional level (formalized in terms of definedness conditions), they provide background information on the speaker’s belief state (in the case of Mood), or further specify the speaker’s emotion to the denoted proposition (in the case of particles).

(99) 

```
CP
  EX
     CP
        C[MOOD] if TP
          PRT p
            only I had brought a sandwich
```
In the following sub-sections, I briefly discuss each of these three ingredients, starting with the simplest and most crucial case (EX itself) in section 3.2.2. I then proceed to introduce the role of particles in section 3.2.3, and I then analyze the role of semantic mood in section 3.2.4.

3.2.2 Introducing EX

The empirical scope of this sub-section is limited to two core cases of what can be labeled exclamations, as these are subject to the least confounds: I focus on particle-less, indicative that-optatives and that-polar exclamatives. Let us start with a few examples that are ambiguous between an optative reading and a polar exclamative reading in (100). Each of the unembedded that-clauses in (100) is ambiguous between an optative reading, under which it expresses some type of desire, and a polar exclamative reading, under which it expresses some type of surprise. Note that these utterances are, in a sense, surface-minimal pairs; the context always disambiguates, as follows. Optative readings require the denoted proposition to be non-factive, whereas polar exclamatives require the denoted proposition to be factive (on a par with what has been observed for degree exclamatives, cf. Elliot 1971, 1974; Grimshaw 1979; Zanuttini & Portner 2000, 2003; Abels 2010). I discuss this discrepancy in chapter 5.2. For now, let us gloss over this difference, which is orthogonal to my proposal for EX.

(100) a. Dass EIN Mal am Wochenende die Sonne scheint!
    that one time on.the week.end the sun shines
    lit. ‘That once the sun is shining on the weekend!’
    opt. reading: [I want] that for once the sun shines on the weekend!
    excl. reading: [I’m surprised] that for once the sun shines on the weekend!

b. Mein Gott, dass der heute nicht verschlafen hat!
    my God that he today not overslept has
    lit. ‘My God, that he didn’t oversleep today!’
    opt. reading: [I hope] that he didn’t oversleep today!
    excl. reading: [I’m shocked] that he didn’t oversleep today!
c. Und dass du dich nicht schämst!
    and that you not be.ashamed
    *lit. ‘And that you’re not ashamed!’*

    *opt. reading*: [I want] that you are not ashamed!
    *excl. reading*: [I’m shocked] that you are not ashamed!

Focusing on the relatively simple utterances in (100) *(simple in the sense that they do not contain particles or counterfactual mood marking)*, I propose that such utterances involve two crucial ingredients: The denoted proposition \( \varphi \) and a null operator \( EX \). For the time being, let us treat complementizers as semantically vacuous, and ignore optional interjections (*Mein Gott!* ‘my God’ in (100b)) as well as clause-initial coordinators (*und ‘and’ in (100c)).

The meaning of \( EX \) can now be given as in (101a) (see section 4.1.2 for auxiliary definitions), and the two core ingredient are compositionally put together as in (101b).

(101a) For any scale \( S \) and proposition \( p \), interpreted in relation to a context \( c \) and assignment function \( g \), an utterance \( EX(S)(p) \) is felicitous iff

\[
\forall q [ \text{THRESHOLD}(c) > S q \rightarrow p > S q ]
\]

“\( EX \) expresses an emotion that captures the fact that \( p \) is higher on a (speaker-related) scale \( S \) than all contextually relevant alternatives \( q \) below a contextual threshold.”

*where* \( \text{THRESHOLD}(c) \) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale \( S \).

(101b) \( EX(S)(\text{he-didn’t-oversleep}) \) is felicitous iff

\[
\forall q [ \text{THRESHOLD}(c) > S q \rightarrow \text{he-didn’t-oversleep} > S q ]
\]

“The speaker expresses an emotion that [he didn’t oversleep] is relatively high on \( S \).”

\[\begin{array}{c}
EX(S) \\
\text{(that) he didn’t oversleep} \\
\end{array}\]

\[\begin{array}{c}
EX \\
S \\
\end{array}\]

---

43 Strictly speaking, \( \forall q [ \text{THRESHOLD}(c) > S q \rightarrow p > S q ] \) can be abbreviated as \( p \geq S \text{THRESHOLD}(c) \). I will however maintain the non-abbreviated version throughout this dissertation, based on how rankings among propositions are defined in chapter 4.
We derive the optative and exclamative reading by means of the scale variable, which is contextually bound: If $S$ refers to a scale that models the speaker’s preferences (i.e. a bouletic scale), we get an optative reading. If $S$ refers to a scale that models the speaker’s surprise (i.e. an inverse prior likelihood scale), we get a polar exclamative reading. The details of this analysis are given in chapter 4. Having shown how we will account for the most simple cases, we can now introduce particles to see how these can be integrated into the analysis. (For expository reasons, I first discuss particles and then mood, whereas in the overall structure, I first discuss mood, in chapter 5, and then particles, in chapter 6.)

### 3.2.3 The Role of Particles in Exclamations

In this section, I argue that particles serve two functions in exclamations: First, they can modulate the wish, surprise or other emotion that is expressed by an utterance that contains $EX$; they do so by triggering different presuppositions with respect to the modified proposition. Second, particles can disambiguate between different types of exclamations; by and large, they do so by virtue of being incompatible with other types of exclamations. On a larger scale, I argue for a system (in section 6.5) that captures the fact that particles in a language like German play a crucial role in clause typing. In contrast to approaches that view them as speech act modifiers (cf. Jacobs 1991), I argue that their clause typing effect arises as a conspiracy, due to their disambiguating nature.

To illustrate their first function in exclamations (modulating the expressed emotion), consider two different variants of (102a) under its optative reading (I will omit literal translations unless relevant). The difference between *nur* ‘only’ in (102b) and *wenigstens* ‘at least’ in (102c) is that *nur* ‘only’ conveys a general notion of moderation (i.e. ‘This is not much to ask!’ / ‘I’d be satisfied with this little!’), whereas *wenigstens* ‘at least’ conveys that there is a specific alternative that I would prefer, but that seems to be unachievable (which is why I’m settling for less).

(102) a. Dass EIN Mal am Wochenende die Sonne scheint!
    that one time on.the week.end the sun shines
    ‘[I want] that for once the sun shines on the weekend!’
b. Dass nur EIN Mal am Wochenende die Sonne scheint! that only one time on the weekend the sun shines
‘If **only** for once the sun shines (were to shine) on the weekend!’

**only** conveys: ‘This is not much to ask for!’

c. Dass **wenigstens** EIN Mal am Wochenende die Sonne scheint!
that at least one time on the weekend the sun shines
‘[I want] that **at least** the sun will shine on the weekend for once!’

**at least** conveys: ‘There is something else that I want even more!’

I argue that this is the core contribution of particles in optatives. They convey additional information on the denoted proposition, and they do so at the presuppositional level\(^{44}\). To derive the examples in (102b) and (102c), we can posit lexical entries in (103a) and (103b). As indicated, the particles do not change the felicity conditions of an EX- utterance, i.e. (103c) has the same felicity conditions as (101b). Yet, what the particles add are additional presuppositions that the desired proposition is ‘not much to ask’ or ‘less than optimal’.

\(^{44}\) It is in principle also conceivable that their non-truth-conditional contribution takes place at the level of conventional implicature. It is beyond the scope of this project to extensively compare the two options.
c. EX(S)(he-didn’t-oversleep) is felicitous iff
\[ \forall q[\text{Threshold}(c) >_S q \rightarrow \text{he-didn’t-oversleep} >_S q] \]
“The speaker expresses an emotion that [he didn’t oversleep] is relatively high on S.”

\[ \text{EX(S)} \]
\[ \text{nur} \]
\[ \text{EX} \]
\[ \text{S} \]
\[ \text{wenigstens} \]
\[ \text{(that) he didn’t oversleep} \]

\[ \text{ONLY}_2 \text{presupposition:} \]
MOST \( q \in g(C) \ [q >_S \text{he-didn’t-oversleep}] \)
“[he didn’t oversleep] is relatively low on S”

\[ \text{wenigstens presuppositions:} \]
\[ \exists r \in g(C) \ [r >_{\text{preference}} \text{he-didn’t-oversleep}] \land \]
\[ \exists q \in g(C) \ [\text{he-didn’t-oversleep} >_{\text{preference}} q] \]
“[he didn’t oversleep] is not optimal but acceptable”

A third particle that I will focus on is German *doch*, which is limited to counterfactual optatives and cannot occur in indicative optatives.

\[ (104) \text{a.} \# \text{Dass} \ \text{doch} \ \text{EIN} \ \text{Mal am} \ \text{Wochenende} \ \text{die Sonne scheint!}^{45} \]
that \ doch one time on.the weekend the sun shines

\[ \text{b. Dass} \ \text{doch} \ \text{EIN} \ \text{Mal am} \ \text{Wochenende} \ \text{die Sonne geschienen hätte!} \]
that \ doch one time on.the weekend the sun shined had
‘If *doch* for once the sun had shined on the weekend!’

*doch* conveys: ‘This is in conflict with reality, where the sun is not shining!’

Postponing a discussion of mood to the next section, a lexical entry for *doch* can be given as follows, assuming (in the spirit of Kratzer & Matthewson’s 2009 analysis of *ja*) that *doch* is simply a presupposition trigger. It is integrated into the clause in the same way

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45 This is completely unacceptable under an optative reading. Interestingly, while (104a) is in principle acceptable under a polar exclamative reading, this particular example is marginal under such a reading as well, or at least very marked with the given stress pattern. The polar exclamative reading of (104a) improves if the main stress is placed on *doch* and *ein ‘one’* is distressed. For more natural polar exclamatives with unstressed *doch*, see section 6.4, and particularly examples (783) and (791).
that *nur* ‘only’ and *wenigstens* ‘at least’ are, as a truth-conditionally vacuous presupposition trigger.

\[(105) \quad ||\text{doch}_c||_{g,c,w} = \lambda p : \]
\[
\exists q \in g(C) \ [p \neq q \land \neg[p(w) \land q(w)]) \land \\ p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset \lor \neg p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset .
\]

“*doch* is a truth-conditionally vacuous element, which triggers a presupposition that the truth/falsity of the modified proposition is established and that the modified proposition conflicts with some contextually salient proposition.”

(based on Grosz 2010, Kratzer & Matthewson 2009)

Having outlined how particles contribute presuppositions that modulate the expression of an emotion that *EX* utterances perform, we can now consider the second function that particles fulfill in such utterances. Particles can disambiguate between different types of exclamations (and, for what it’s worth, between exclamations and utterances that are not exclamations). It is conceivable that this is connected to their lexical semantics (*doch* emphasizing a polar contrast, *wenigstens* ‘at least’ requiring a bouletic scale, and *nur* ‘only’ conveying moderation on some scale). To illustrate the disambiguating effect of particles, consider first the examples in (106), which are identical to those in (100) except for the occurrence of *nur* ‘only’ in (106). What we observe is that (106a-c), without *nur* ‘only’, are ambiguous between an optative reading and a polar exclamative reading. After inserting *nur* ‘only’, as in (106a-c), the polar exclamative reading disappears. By virtue of some property of *nur* ‘only’, this reading seems to be blocked.

(106) a. Dass *nur* EIN Mal am Wochenende die Sonne scheint!

that only one time on.the week.end the sun shines

*lit. ‘That once the sun is shining on the weekend!’*

*opt. reading:* [I want] that for once the sun shines on the weekend!

*excl. reading:* [I’m surprised] that for once the sun shines on the weekend!
b. Mein Gott, dass der heute nur nicht verschlafen hat!  
my God that he today only not overslept has  
lit. ‘My God, that he didn’t oversleep today!’  
*opt. reading: [I hope] that he didn’t oversleep today!  
*excl. reading: [I’m shocked] that he didn’t oversleep today!

c. Und dass du dich nur nicht schämst!  
and that you only not be. ashamed  
lit. ‘And that you’re not ashamed!’  
*opt. reading: [I want] that you are not ashamed!  
*excl. reading: [I’m shocked] that you are not ashamed!

Contrastively, to provide a second example of the disambiguating effect of particles,  
(unstressed) doch does not always disambiguate between optatives and polar  
exclamatives, as shown in (107), which has both an optative reading, (107b), and a polar  
exclamative reading, (107c).

(107) a. Hätte die dem doch tatSÄCHlich das Buch gegeben!  
had_subj she him doch indeed the book given  
lit. ‘Had she indeed given him the book!’  
*opt. reading: [I hope] she had given him the book!’  
*p.exc. reading: [I’m shocked] she would have indeed given him the book!’  
(adapted from Scholz 1991:132-133, attributing the example to Norbert Fries)

However, while doch does not disambiguate between optatives and polar exclamatives, it  
can be shown to eliminate degree exclamative readings in V1-clauses, typically in favor  
of polar exclamative readings. Minimal pairs are difficult to construct, but the following  
pair comes closest to an acceptable minimal pair. German V1-degree exclamatives  
typically contain the particle aber (literally ‘but’) or vielleicht (literally ‘maybe’), cf.  
Rosengren (1992), Brandner (2010). As shown in (108a), we cannot replace aber ‘but’ by  
doch without changing the clause from a degree exclamative into a polar exclamative;  
conversely, in (108a), we cannot replace doch by aber ‘but’, without changing the clause  
from a polar exclamative into a degree exclamative.
(108)a. Hat der **aber** / **d**och wirklich nochmal Schwein gehabt!  
has he but #doch really again pig had  
‘Boy, was he lucky again!’  
(adapted from http://meinews.niuz.biz/d-t584936p2.html)

b. Hat der **d**och / **aber** wirklich nochmal Schwein gehabt!  
has he doch #but really again pig had  
‘[I’m shocked that] he was lucky again!’

More natural examples typically involve more than one difference, as given in (109).

(109) a. **Mensch,** hat der **aber** getanzt!  
man has he but danced  
‘Man, how he danced!’

b. **Mensch,** hat der **d**och **glatt** getanzt!  
man has he doch outright danced  
‘Man, [I’m shocked that] he danced!’

A similar example is given in (110), where **vielleicht** ‘maybe’ is used instead of **aber** ‘but’.

(110) a. **Mensch,** hat der **vielleicht** gelogen!  
man has he maybe lied  
‘Man, how he was lying!’

b. **Mensch,** hat der **d**och **glatt** gelogen!  
man has he doch outright lied  
‘Man, [I’m shocked that] he lied!’

Alternatively, in some cases, **d**och can block a degree exclamative reading in favor of an optative reading. This is illustrated in (111), adapted from Rosengren (1993). Notably, such utterances are more complex than the examples in (108)-(110), as follows. The particle **d**och can only occur in counterfactual, subjunctive-marked optatives. Therefore, a surface-minimal pair must be in the subjunctive; as polar exclamatives and degree exclamatives are factive, they cannot be counterfactual – instead, they must be implicitly conditionalized. This should be clear from the glosses.
(111) a. Wäre ich **doch** / #**vielleicht** reich!  
‘If only I were rich!’ (counterfactual)

c. Wäre ich **vielleicht** / #**doch** reich!  
‘Boy, would I be rich!’ / ‘How rich I would be!’ (non-counterfactual, factive)

However, in short, we can generalize that *doch* is compatible with optatives and polar exclamatives, but eliminates degree exclamatives. I propose that this is due to the inherent polarity of *doch* – by virtue of its presuppositional meaning it contrasts the denoted proposition with a single salient, conflicting proposition. In optatives, the denoted (*wished for*) proposition is contrasted with the proposition that describes what is the case. In polar exclamatives, the denoted (*surprising*) proposition is contrasted with the proposition that describes what was originally expected. We can explain the incompatibility of *doch* and degree exclamatives by assuming that such a polar / binary pairing of two propositions is not directly possible in degree exclamatives. In this sense, *doch* blocks a degree exclamative reading, disambiguating towards a polar exclamative or optative reading.

In sum, to account for particles in exclamations, I have introduced a third ingredient into the system from section 3.2.2. Particles are typically truth-conditionally vacuous presupposition triggers, which serve to modulate the proposition in the scope of the EX operator. What is worth pointing out is that my analysis takes a uniform perspective to so-called “focus particles” such as nur ‘only’ and wenigstens ‘at least’ on the one hand and to so-called “discourse particles” such as *doch* on the other hand. The purported distinction between focus particles and discourse particles is thus implicitly eliminated, following the presuppositional approach sketched in Kratzer & Matthewson (2009). The difference between an element like nur ‘only’ and an element like *doch* reduces to their different lexical entry – there is no categorical distinction. (See chapter 6 for the details of my analysis of particles.) Having given an outline of my analysis for particles, I turn to the final ingredient that I am concerned with: Mood, by which I mean semantic mood, not morphological mood.
3.2.4 The Role of Mood in Exclamations

The third core question that I address in this dissertation concerns the connection between semantic mood (subsuming counterfactuality, factivity, etc) and the overt material that fills the complementizer position in a language like German. In spite of the way I present things in the present section, I will discuss this topic before discussing particles, in chapter 5. The two questions that I address can be stated as follows. First, we want to understand what constrains the possibility of (V-to-)T-to-C movement, (112a), and the distribution of different complementizers in exclamations, (112b+c).

(112)a. Wäre er nur rechtzeitig gekommen t\_wäre!
were he only in.time come
b. Daß er nur rechtzeitig gekommen w\_äre!
that he only in.time come were
c. Wenn er nur rechtzeitig gekommen w\_äre!
if he only in.time come were
‘If only he had come in time!’

Second, we want to understand how mood information enters into the computation of an exclamation. Specifically, if we utter (113a), how does the presupposition arise that we don’t yet know whether it has happened (i.e. non-counterfactuality), whereas in (113b), it is presupposed that we already know that it did not happen (i.e. counterfactuality).

(113)a. Wenn er nur rechtzeitig gekommen ist!
if he only in.time come is
‘If only he came in time!’
⇒ I HOPE THAT [he has arrived in time].

b. Wenn er nur rechtzeitig gekommen w\_äre!
if he only in.time come were
‘If only he had come in time!’
⇒ I WISH THAT [he had arrived in time].

The core idea that I posit incorporates and implements insights from different lines of research. Specifically, I incorporate Truckenbrodt’s (2006ab) insights on (V-to-)T-to-C
movement with our knowledge on mood selection (e.g. Portner 1997, Quer 1998, Giannakidou 1999), and formalize my proposal in a Pesetsky & Torrego (2001) type system.

Focusing on German, I argue that semantic mood (which I will shortly explain in more detail) is overtly marked in two locations: On the inflected verb or auxiliary (where it takes the shape of morphological mood, indicative or subjunctive) and in C, where it co-determines the possible complementizers (wenn ‘if’ or dass ‘that’) and the (im)possibility of (V-to-)T-to-C movement. I implement this by assuming a Mood head that enters an agreement relation with C. The idea is schematically illustrated in (114).

(114)a. Ach, wenn es geregnet hätte!
oh if it rained had
‘If only it had rained!’

b. 

More precisely, I implement the above idea by assuming that semantic mood is encoded in Mood, a head that is located above T. Mood encodes information on the epistemic status of the modified proposition (e.g. does the speaker believe in its truth, falsity or neither?). This information is presuppositional in nature, as given in (115).

(115)a. \[ ||i\text{Mood}_{CF}||^e = \lambda p . \lambda w : p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset . p(w) \]  \hspace{1cm} \text{COUNTERFACTUALITY} 

“The speaker presupposes p to be false.”

b. \[ ||i\text{Mood}_{DEF}||^e = \lambda p . \lambda w . p(w) \]  \hspace{1cm} \text{UNMARKED MOOD} 

(iMood_{DEF} does not trigger any presuppositions with respect to the truth or falsity of p)
In addition to interpretable mood in *Mood*, I assume that mood information must also be represented in C by virtue of an uninterpretable [uMood] feature in C. I argue that the choice of overt material in C is co-determined by whether C (and Mood) has the EPP property or not. If C has the EPP property and Mood does not, (116b), Mood undergoes head movement to C without ‘pied piping’ (in an informal sense) the T head; I argue that [C+Mood] is spelled out as *wenn* ‘if’, (117b). Alternatively, if both C and Mood have the EPP property, (116c), we see (V-to-)T-to-Mood-to-C movement, i.e. V1, (117c). If C lacks the EPP property, (116a), C is spelled out as *dass* ‘that’, which is its default spell-out, (117a). The complete proposal is summarized in (116)+(117).

(116)a. \[ C\text{[uMood, EPP]} \ldots \text{Mood[iMood, iT, EPP]} \ldots T[iT] \]
\[ \Rightarrow C\text{[}[\text{dass}]\text{]} \ldots T[iT] + \text{Mood[iMood, iT]} \ldots \langle T[iT]\rangle \]
\[ \text{spell-out: } C\text{[}[\text{dass}]\text{]} \Leftrightarrow \text{dass ‘that’} \]

b. \[ C\text{[uMood, EPP]} \ldots \text{Mood[iMood, iT, -EPP]} \ldots T[iT] \]
\[ \Rightarrow \text{Mood[iMood, iT]} + C\text{[}[\text{wenn}]\text{]} \ldots \langle \text{Mood[iMood, iT]} \rangle \ldots T[iT] \]
\[ \text{spell-out: } \text{Mood[iMood, iT]} + C\text{[}[\text{wenn}]\text{]} \Leftrightarrow \text{wenn ‘if’} \]

c. \[ C\text{[uMood, EPP]} \ldots \text{Mood[iMood, iT, EPP]} \ldots T[iT] \]
\[ \Rightarrow C\text{[uMood, EPP]} \ldots T[iT] + \text{Mood[iMood, iT]} \ldots \langle T[iT]\rangle \]
\[ \Rightarrow \langle T[iT]\rangle + \text{Mood[iMood, iT]} + C\text{[}[\text{dass}]\text{]} \ldots \langle T[iT]\rangle + \text{Mood[iMood, iT]} \rangle \ldots \langle T[iT]\rangle \]
\[ \text{spell-out: } \langle T[iT]\rangle + \text{Mood[iMood, iT]} + C\text{[}[\text{dass}]\text{]} \Leftrightarrow \text{V1} \]

(117)a. *dass* ‘that’ spells out C on its own.

b. *wenn ‘if’* spells out [C [Mood]].

c. *V1* spells out [C [T [Mood]]].

In its base position, *Mood* codetermines the morphological mood marking on the verb; notably, it does not fully determine them, as we find various ‘sequence of mood’ effects. For instance, in (118b), the V1-degree exclamative (*Boy, would he have scolded us!* ) is just as factive as the V1-degree exclamative in (118a). This is shown in (118b-ii), as
compared to (118a-ii). Yet, the verb is subjunctive marked, due to the implicit conditionalization, which marks it as a statement on counterfactual worlds\textsuperscript{46}.

(118)a. **Hat** der vielleicht geschimpft!
   did he maybe scold
   ‘Boy, did he scold us!’
   i. *expresses*: It is remarkable how much he scolded us.
   ii. *presupposes*: **It is a fact** that he scolded us to a high degree.

b. Stell dir vor, er hätte uns gesehen. **Hätte** der vielleicht geschimpft!
   imagine you PRT he had us seen had he maybe scolded
   ‘Imagine that he’d seen us. Boy, would he have scolded us!’
   i. *expresses*: It is remarkable how much he would have scolded us if he had seen us.
   ii. *presupposes*: **It is a fact** that he would have scolded us to a high degree if he had seen us.

In sum, I argue that presuppositions on the truth or falsity of the modified proposition arise due to interpretable mood features, which have an overt reflex both in the locus of C and in their base position. In C, they co-determine which material overtly realizes the complementizer position. In their base position, mood features co-determine mood marking on the verb (i.e. subjunctive or indicative). For languages like German and Dutch, the view that overt material in C is a realization of $C$, $C+\text{Mood}$ or $C+\text{Mood}+T$ derives the complementarity of ‘complementizers’ and V-to-C movement, originally observed by den Besten (1983).

### 3.3 Summary and Road Map

I have presented my system for optative constructions, first focusing on the big picture in section 3.1, then laying out the details in section 3.2. The idea is that we need three core

\textsuperscript{46} Precisely, what (118b-ii) seems to presuppose is that there are counterfactual worlds such that it is a fact from the perspective of the actual world that in these counterfactual worlds he (a salient individual) would have scolded us very much.
ingredients to derive the meaning and specific properties of the utterance in (119a), which contains the proposition (119c) and involves the mood realization configuration in (119b). The ingredients are (i.) a silent exclamation operator EX, (ii.) semantic mood features, and (iii.) a presuppositional account for particles such as nur ‘only’.

(119)a. **Hätte es nur geregnet** thätne!
   had it only rained
   ‘Had it only rained!’
   b. **Derivation of the V1 spell-out**

   ![Diagram of mood realization configuration]

   c. denoted proposition: \( \lambda w. \text{it rained in } w \)

The LF for (119a) is given in (120a), and (120b-d) summarize the core ingredients.

(120)a. LF:

   ![Diagram of LF structure]

b. **felicity conditions:**

   EX(\( S_{\text{speaker-preferences}} \))(\( \text{rain} \)) is felicitous iff
   \( \forall q [\text{THRESHOLD}(c) >_{\text{speaker-preferences}} q \rightarrow \text{rain} >_{\text{speaker-preferences}} q] \)
   “The speaker expresses the emotion that [it rained] is above a salient threshold on the speaker’s preference scale / desirability scale.”
c. mood information:
Mood_{CF} triggers the presupposition that
\{ w : \text{it rained in } w \} \cap \text{Dox}_{\text{speaker}}(w) = \emptyset

“The speaker presupposes that it is false that [it rained]”

d. particle contribution:
nur triggers the presupposition that
\text{MOST } q \in g(C) [ q >_{\text{speaker-preferences}} \text{rain} ]

\text{where } C \text{ is a contextually provided set of proposition}

“The speaker presupposes that [it rained] is relatively low on the speaker’s preference scale; in other words, asking for rain is not much to ask.”

The core of this dissertation consists of detailed argumentation for each of these three points, and an exploration of the consequences (where applicable). I first focus on the nature of EX, its motivations, and its consequences, in chapter 4. I then proceed to a discussion of iMood features and mood agreement between C and Mood, in chapter 5. Finally, I present a detailed investigation of three prototypically optative particles, nur ‘only’, wenigstens ‘at least’ and doch, in chapter 6. Each chapter is self-contained, presenting the respective analysis, its motivation and the implications of such an approach.
4. The Source of Desirability in Optatives


(121)a. Mensch! Dass der heute nicht verschlafen hat!  
man that he today not overslept has  
lit. ‘Man! That he didn’t oversleep today!’

b. optative reading: [I hope] that he didn’t oversleep today!

c. exclamative reading: [I’m shocked] that he didn’t oversleep today!

I propose that such utterances involve a covert operator $EX$, (122), which has the following properties. First, $EX$ is a scalar operator, conveying that the modified proposition exceeds a salient threshold on a contextually salient scale, provided by a scalar argument $S$ (the scale represents speaker preferences in the case of optatives, (prior) speaker unlikelihood in the case of polar exclamatives). Second, $EX$ is an expressive element that shifts descriptive content into the domain of expressive content, in the sense of Potts & Roeper (2006).

(122)a. Dass der heute nicht verschlafen hat!  
that he today not overslept has  
lit. ‘That he didn’t oversleep today!’

b. LF: [[$EX$ $S$] [that he didn’t oversleep today]]!

I consider Kyriakaki (2007, 2008, 2009) a predecessor of my proposal, as she assumes that Greek counterfactual wishes like (123a) involve a covert operator with (roughly) a wish-reading that is ‘exclamative’ (and thus unembeddable) in nature; the LF for (123a) can be schematically given as in (123b) (my strongly simplified rendering), and $makārī$ is a plausible lexicalization of the wish-operator, according to Kyriakaki.
(123)a. (Makári) na imun plúsios!
    makari na be.imp.1s rich
    ‘If only / I wish I were rich!’
    (Kyriakaki 2007:41+48)

b. LF: [WISH [I am rich]]!

My analysis departs from Kyriakaki’s analysis in several important respects. First, I propose a generalized variant of this exclamation operator, which covers both optatives and polar exclamatives. Second, I argue that the exclamation operator (my EX) is an expressive operator, which maps truth-functional descriptive content into use-conditional expressive content (in the spirit of Potts & Roeper 2006). Third, I propose to treat EX as an inherently scalar element that combines with a scalar argument $S$, which opens the possibility of investigating interactions between $EX$ and other scalar particles (specifically: only and at least). Fourth, I dissociate the counterfactuality presupposition of counterfactual optatives from their expression of desirability (a possibility that Kyriakaki 2007 points out in footnote 33). And finally, I present a variety of new arguments in favor of $EX$.

An alternative view to Kyriakaki’s and my proposal is presented in Biezma (2011ab). Biezma, focusing on if-optatives (as opposed to that-optatives), assumes that there is no covert operator in optatives, and argues that desirability arises from an interaction between the compositional meaning of a conditional antecedent and the pragmatics of discourse. I review Biezma’s proposal in section 4.2.

In section 4.1 I present my own system of deriving desirability in optatives by way of the generalized $EX$ operator. The structure of this chapter is as follows. I will first briefly revisit the puzzle in section 4.1.1 and summarize the core proposal in section 4.1.2. Section 4.1.3 argues that optative clauses share properties with argument clauses, whereas section 4.1.4 argues against a matrix clause deletion approach. This gives rise to an apparent dilemma, which is resolved by positing a covert exclamation operator $EX$ that serves to express an emotion towards a particular proposition, 4.1.5. I proceed by arguing that $EX$ is an expressive operator (i.e. it combines with truth-functional descriptive content and maps it onto expressive content), in section 4.1.6, and that $EX$ is a scalar
operator, in section 4.1.7. After a brief discussion of the interactions between *EX* and overt interjections, in section 4.1.8, I formalize *EX* in 4.1.9. Finally, I discuss cross-linguistic variation with respect to *EX* in section 4.1.10. Section 4.2 reviews Biezma’s (2011ab) analysis of optatives, which does not assume covert operators.

4.1 On Expressing Emotion, the EX Operator and Generalized Exclamations

4.1.1 Revisiting the Core Puzzle: Attitudes without Attitude Predicates

The core question to be addressed in this section is how to account for the expressive meaning conveyed by utterances such as optatives and polar exclamatives. Specifically: How does the wish or surprise arise that is conveyed? The empirical focus will be on optative constructions as in (124) and (125). The core puzzle can be stated as follows: How is the meaning that is captured by the paraphrases in (124d) and (125c) compositionally derived?

(124) subjunctive (and counterfactual) optatives

a. **Daß** er (doch) nur rechtzeitig gekommen wäre!
   that he doch only in.time come were

b. **Wenn** er (doch) nur rechtzeitig gekommen wäre!
   if he doch only in.time come were

c. **Wäre** er (doch) nur rechtzeitig gekommen twäre!
   were he doch only in.time come ‘If only he had come in time!’

d. **paraphrase:** I wish he had come in time!

(125) indicative optatives

a. **Daß** er nur (JA) rechtzeitig kommt!
   that he only JA in.time comes

b. **Wenn** er nur (JA) rechtzeitig kommt!
   if he only JA in.time comes ‘If only he comes in time!’

c. **paraphrase:** I hope he will come in time!
To slightly extend the empirical scope, the assumption can be made that an empirically adequate proposal will also cover polar exclamatives, (126) and (127) below. This assumption is justified as the two utterance types share many properties. First, both optatives and polar exclamatives are orientated towards a fact rather than a degree (setting them apart from the types of exclamations that so far received most attention, namely degree exclamatives). Second, both optatives and polar exclamatives involve emotivity, i.e. they seem to express an emotion rather than describe it (Rosengren 1992, 1993). Third, both optatives and polar exclamatives seem to be exclamations (for optatives: Quirk et al. 1972, 1985, Rifkin 2000, Kyriakaki 2007, 2008, 2009). Fourth, both optatives and polar exclamatives involve insubordination, i.e. they typically take the form of unembedded clauses with the morphosyntax of embedded clauses (cf. Truckenbrodt 2006a, Reis 2006). Fifth, both optatives and polar exclamatives have a V1 variant (see chapter 2). These parallels motivate a heuristic approach of aiming for a uniform analysis; alternatively, by pursuing a uniform analysis, we may discover that we need to generalize to the worst case (i.e. that polar exclamatives and optatives require fundamentally different analyses) – I will argue that a uniform analysis is possible.

The puzzle that polar exclamatives pose is analogous to the optative puzzle: How are the intuitive paraphrases in (126c) and (127c) compositionally derived?

(126) indicative polar exclamatives
   a. Daß Sie (doch / tatsächlich / wirklich) daran gedacht haben!
      that you doch really thought
   b. Haben Sie doch (tatsächlich / wirklich) daran gedacht haben!
      have you doch really thought
      ‘Jesus, that you really remembered it!’
      (Scholz 1991:133, who attributes the dass-variant to Wilhelm Oppenrieder)
   c. paraphrase: It is remarkable that you remembered it.

(127) subjunctive (yet factive) polar exclamatives
   a. Daß die dem doch tatsächlich das Buch gegeben hätte!
      that she him indeed the book given had
b. **Hätte** die dem doch tatsächlich das Buch gegeben!  
   ‘Jesus, that she would have indeed given him the book!’
   (based on Scholz 1991:132-133)

c. *paraphrase:* It is remarkable that she would have given him the book.

The following section summarizes the core proposal; I will then proceed to motivating different aspects of that proposal and to exploring its consequences, in sections 4.1.3 to 4.1.10.

### 4.1.2 Core Proposal

I argue for the following proposal. Optatives contain a scalar, expressive operator $EX^{47}$. By *scalar*, I mean that $EX$ directly operates on scales (e.g. reflecting the speaker’s preferences or expectations). By *expressive*, I mean that $EX$ yields a semantic that is non-truth-conditional but rather felicity-conditional (cf. Kratzer 1999, Kratzer & Matthewson 2009 for the use of *felicity conditions* in this context). $EX$ serves to express an emotion of the speaker with respect to the denoted proposition being high on a salient scale (in optatives: speaker preferences); the formalism is loosely based on Villalta (2007)\(^{48}\).

For current purposes, assume the following notion of scale, in (128a+b). Here, scales are defined as orderings over propositions. The given definition now allows us to model sample scales such as in (129a+b).

\[(128)\] *definition of scale (preliminary)*

a. A scale $S$ is defined as a set of ordered pairs of propositions $S \subseteq \wp(W) \times \wp(W)$, which are ordered by an ordering relation $R$, such that for every pair of propositions $<a,b>$ in $S$, the relation $R(<a,b>)$ holds.

b. For any scale $S$ and corresponding ordering relation $R$, I use $p >_S q$ to mean ‘$p$ is strictly higher than $q$ on $S$’, i.e. $R(<p,q>) \land \neg R(<q,p>)$.

(cf. Klinedinst 2005)

---

\(^{47}\) $EX$ is inspired by Gutiérrez Rexach’s (1996) $EXC$ operator, though its semantics differs fundamentally.

\(^{48}\) I argue below that optatives are expressive utterances, cf. Potts & Roeper (2006); I propose that expressive utterances are non-truth-conditional and have felicity conditions instead, see also Kratzer (1999), Kratzer & Matthewson (2009).
Imagine the speaker prefers a cloudy day over a rainy day, but at the same time prefers a sunny day over a cloudy day; these preferences give rise to the scale in (129a). Similarly, if it has been raining for two days and the weather forecast indicates that it will rain for another two days, a rainy day is more likely than a cloudy day, which is more likely than a sunny day. This gives rise to the likelihood scale in (129b). Similarly, an inverse preference scale (or dispreference scale) would look like (129a) with inverted polarity, and an inverse likelihood scale (or unlikelihood scale) would look like (129b) inverted.

(129)a. sample preference scale

\[
\begin{array}{c|c|c|c}
 & p = \{w: \text{it rains in } w\} & q = \{w: \text{it is cloudy in } w\} & r = \{w: \text{it is sunny in } w\} \\
\hline
\text{more desirable}
\end{array}
\]

b. sample likelihood scale

\[
\begin{array}{c|c|c|c}
 & r = \{w: \text{it is sunny in } w\} & q = \{w: \text{it is cloudy in } w\} & p = \{w: \text{it rains in } w\} \\
\hline
\text{more likely}
\end{array}
\]

Having introduced a formal notion of scale, we can now give a first approximation of EX in (130); what (130) implements is the idea that there is at least one possible alternative \( q \) to the denoted alternative \( p \), which is lower on the relevant scale than \( p \).

(130) First approximation of EX (to be revised)

For any scale \( S \) and proposition \( p \), interpreted in relation to a context \( c \) and assignment function \( g \),

an utterance of \( \text{EX}_C(S)(p) \) is felicitous iff \( \exists q[[q \neq p \& q \in g(C)] \& p >_S q] \)

“\( \text{EX} \) expresses an emotion that captures the fact that \( p \) is higher on a (speaker-related) scale \( S \) than some contextually relevant alternatives \( q \)”

where \( C \) is a contextually determined variable of type \( <\text{st},\text{t}> \) (a set of propositions), which receives its value from \( g \).

An illustration of this meaning is given in (131).

(131)a. Ach, wäre ich wohlhabend!

   oh were I wealthy
   ‘If only I were wealthy!’ (lit. ‘Oh, were I wealthy!’)

b. LF: \([[\text{EX}_C S_{\text{speaker-preferences}}] [I \text{ am wealthy}]]\)!
c. *felicity conditions:*

\[(131a)\text{ is felicitous iff } \exists q[[q \neq \text{wealthy(speaker)} \& q \in g(C)] \& \text{wealthy(speaker)} > \text{speaker-preference } q]\]

“The speaker expresses the emotion that \(p, \text{the speaker is wealthy}\) is higher on a speaker-related preference scale than some contextually relevant alternative \(q\).”

In a context where there are no salient alternatives, it is natural to assume that the salient \(q\) is simply the negation of the denoted proposition. In such a context, the speaker of (131a) would simply convey that worlds in which the speaker is wealthy are better than worlds in which the speaker isn’t wealthy. However, my analysis presently also predicts that (131a) should be well-formed if my actual preferences are given as in (132). As we will see, this is crucially the case.

\[(132)\]

\[
p = \{w: \text{I am poor in } w\} \quad q = \{w: \text{I am wealthy in } w\} \quad r = \{w: \text{I am rich in } w\}
\]

At this point, two qualifications are in place, which I address in turn. First, we need to refine the notion of scale that we use in order to derive the right results. Second, we need to find a way to make \(EX\) sensitive to scalar thresholds.

The first issue that arises concerns the implausibility of it being the case that the scales that we are dealing with rank propositions directly. As it stands, we seem to predict that (133a) entails (133b), which, as indicated, does not reflect our intuitions. The false entailment is due to the subset relations in (134). Assume that I, as the speaker, prefer the set of worlds in which I am wealthy over the set of worlds in which I am poor, as sketched in (133a). It then seems to follow that I prefer worlds in which I am dead and wealthy over worlds in which I am alive and poor, sketched in (133b). This is clearly pathological. We thus have to conclude that we are not directly ranking (entire) sets of worlds with respect to their relative desirability.

\[(133)a. \quad \{w: \text{I am wealthy in } w\} >_{\text{speaker-preference}} \{w: \text{I am poor in } w\}\]

\[b. \quad \not> \quad \{w: \text{I am wealthy and dead in } w\} >_{\text{speaker-preference}} \{w: \text{I am poor and alive in } w\}\]
(134)a. \{w: I am wealthy and dead in w\} \subseteq \{w: I am wealthy in w\}
b. \{w: I am poor and alive in w\} \subseteq \{w: I am poor in w\}

Heim (1992) solves this problem by assuming a conditional semantics for predicates such as \textit{want}, \textit{wish} and \textit{be glad}. The \(p\)-worlds that are closest to the evaluation world \(w\) are more preferable than the \(\neg p\)-worlds that are closest to the evaluation world \(w\). In other words, \(p\) is more preferable than \(\neg p\), all else being equal. I adopt the alternative view from Villalta (2007) that scales actually rank worlds, (135b), and propositions are only ranked by proxy, using Kratzer’s (1991) better possibility, (135c).

(135) \textit{definition of scale (final)}

a. A scale \(S\) is defined as a set of ordered pairs of worlds \((S \subseteq W \times W)\), which are ordered by an ordering relation \(R\), such that for every pair of worlds \(<w_7, w_3>\) in \(S\), the relation \(R(<w_7, w_3>)\) holds.

b. For any scale \(S\) and corresponding ordering relation \(R\), I use \(w_7 >_S w_3\) to mean ‘\(w_7\) is strictly higher than \(w_3\) on \(S\)’, i.e. \(R(<w_7, w_3>) \land \neg R(<w_3, w_7>)\).

c. For any proposition \(p\) and \(q\), \(p >_S q\) iff \(\forall w_3 \in q \ \exists w_7 \in p\) such that \(w_7 >_S w_3\), and it is not the case that \(\forall w_7 \in p \ \exists w_3 \in q\) such that \(w_3 >_S w_7\).

(adapted from Villalta 2007:106, using concepts from Klinedinst 2005)

The idea here is that orderings of worlds always establish a scale. To exemplify, take two worlds, \(w_3\) and \(w_7\), identical except for the fact that in \(w_7\) I am rich and in \(w_3\) I am not rich. If I intend to be rich, \(w_7\) will be higher on my preference scale than \(w_3\), as in (136).

\begin{equation}
\text{More desirable} \quad \downarrow \quad w_7 \quad \text{Less desirable} \quad \downarrow \quad w_3
\end{equation}

By means of Kratzer’s (1991) better possibility, we can now rank propositions with respect to such a scale. If there is a \(p\)-world that is ranked higher than all \(q\)-worlds, \(p\) can be said to be ranked higher on the scale than \(q\), cf. (135b); this is illustrated in (137).
The second issue with (130) concerns the fact that our entry for *EX* is too weak as it stands. Existential quantification over contextually relevant alternative propositions does not capture our intuition that the desirability of the denoted proposition in an optative must be above some salient threshold. For now, it suffices to assume that the choice of relevant alternatives by means of the contextual variable *C* achieves this purpose. The worry is that such a move assigns a rather powerful role to *C*, and we are losing explanatory power to the ‘black box’ that is contextual information. How can we remedy this issue? On the one hand, if we follow Villalta (2007) in assuming that *C* must be a subset of the focus alternatives of the modified proposition, this limits the range of possible alternatives in the interpretation of optatives. Moreover, it has been observed that optatives often involve verum focus (cf. Scholz 1991, Rosengren 1993), which will typically limit the relevant alternatives to the expressed proposition and its negation. On the other hand, it seems justified to write ‘threshold sensitivity’ directly into the meaning of *EX* (in the same sense in which gradable predicates are usually sensitive to some contextual standard). This allows us to dispense with a contextual set of alternatives *C*. I thus propose the revised lexical entry for *EX* in (138).

(138) *Lexical entry for EX* (final)

For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,

an utterance EX(*S*)(*p*) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$ 

“*EX* expresses an emotion that captures the fact that *p* is higher on a (speaker-related) scale *S* than all contextually relevant alternatives *q* below a contextual threshold.”

where *THRESHOLD*(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale *S*.
Assume that in order to be in a tolerable world, I need to earn at least $1200 per month. In a context in which this is the case, \textsc{threshold}(c) may yield \{w : I earn $1200 per month in w\}. Such a situation is described in (139) (where $p_n$ abbreviates $p = \{w : I earn n$ per month in w\}).

\[
\begin{array}{cccccccc}
\vdots & \vdots & \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\
\text{\textsc{threshold}(c)} & \text{p$_{1000}$} & \text{p$_{1100}$} & \text{p$_{1200}$} & \text{p$_{1300}$} & \text{p$_{1400}$} & \text{p$_{1500}$} & \text{p$_{1600}$} \\
\end{array}
\]

more desirable

I will come back to a discussion of the formal implementation in some more detail in section 4.1.9; first, I focus on how to motivate the overall proposal.

To summarize in brief, my proposal rests on the following sub-proposals, which I will argue for one by one. First, while optative clauses quite generally behave like complement clauses (section 4.1.3), they do not contain an elided matrix clause (section 4.1.4), which argues against Evans (2007) (and other rendering of a \textit{matrix clause deletion approach}). I propose that we can best account for the observations in 4.1.3 and 4.1.4, by assuming a covert operator \textit{EX}, which takes the optative clause as its complement but does not have the status of a covert matrix clause, as illustrated in (140).

\[(140) \ [EX \ [\text{cp Daß / Wenn er doch nur rechtzeitig gekommen wäre!}]]
\]

that if he doch only in.time come were

‘If only he had come in time!’

As summarized in (141), I make the following further assumptions. First, \textit{EX} is emotive and can be generalized to polar exclamatives ((141i) and section 4.1.5); \textit{EX} is not part of the descriptive at-issue content, but expressive in nature ((141ii) and section 4.1.6); \textit{EX} is scalar ((141iii) and section 4.1.7); and while \textit{EX} interacts with overt interjections, these interjections do not express \textit{EX} ((141iv) and section 4.1.8). I then discuss some more formal issues in section 4.1.9 and discuss cross-linguistic and language-internal variance with respect to \textit{EX} in section 4.1.10.
(141) An utterance of $EX(q)$ conveys:

i. the speaker at the point of utterance has an emotion $\varepsilon$ (or at least an evaluative attitude $\varepsilon$) towards $\varphi^{49}$.

ii. the speaker intends to express $\varepsilon$, rather than describe $\varepsilon$.

iii. $\varepsilon$ involves a scale (in the case of optatives: a preference scale)

iv. $EX$ combines with interjections (oh!, man!, …) to further refine the expression of $\varepsilon$, but these interjections do not express $EX$

Topics that I discuss in subsequent chapters include the connection between $EX$ and semantic mood (e.g. counterfactuality, factivity), which I discuss in chapter 5, as well as the role of prototypical particles in $EX$-utterances, which I discuss in chapter 6.

4.1.3 Optative clauses behave like complement clauses

The purpose of this section is to motivate the idea that optatives behave like complement clauses, even in their if-clause variant. The selectional relation between an operator (which I will argue to be $EX$) and its optative complement is schematically given in (142).

(142) Sub-Claim 1: Optatives are selected by an operator

\[ \ldots \text{Op} \ldots \text{[} \text{Daß} / \text{Wenn} \text{er doch nur rechtzeitig gekommen wäre!} \]  
\[ \text{that if he doch only in.time come were} \]
\[ \text{‘If only he had come in time!’} \]

The idea that $daß$-clauses (i.e. that-clauses) are complements may be obvious, whereas the idea that $wenn$-clauses (i.e. if-clauses) can be complements seems much more controversial. To argue for such a claim, let me briefly review the typology of if-clauses. In the literature on conditionals, it is commonly assumed that there are various different expressions.

\[^{49}\text{Note that the emotivity of } EX \text{ is not explicitly encoded in the lexical entry in (138). Rather than ascribing it to the lexical meaning of } EX, \text{ I assume that emotivity is simply a property of (certain or even all) expressive elements. (See also Potts & Roeper (2006) on the range of possible expressive small clauses, which appear to involve some emotive component as well.)} \]
types of conditional constructions, including hypothetical conditionals, \( (143) \), relevance conditionals, \( (144) \), and factual conditionals, \( (145) \), cf. Iatridou (1991), Bhatt & Pancheva (2006). The differences between them can be described informally as follows.

First, in the hypothetical conditional, \( (143) \), the if-clause specifies the circumstances under which the consequent is true, all else being equal.

\[
(143) \quad \text{hypothetical / event conditional (e.g. Iatridou 1991, Haegeman 2003)}
\]
\[
\text{[If the water drops below this line,] the heating will stop working.}
\]

Second, in the relevance conditional, \( (144) \), the if-clause specifies the circumstances under which the truth of the consequent is relevant.

\[
(144) \quad \text{relevance / biscuit conditional (e.g. Austin 1956, Iatridou 1991)}
\]
\[
\text{[If you really want to know,] I didn’t go to school today.}
\]

Third, the distinguishing property of the factual conditional, \( (145) \), is that it presupposes that somebody (in English, typically: someone other than the speaker) believes in the truth of the antecedent proposition.

\[
(145) \quad \text{factual / premise conditional (e.g. Iatridou 1991, Haegeman 2003)}
\]
\[
\text{A: I’m really tired.}
\]
\[
\text{B: [If you’re so tired,] you should go to sleep.}
\]

Another type of if-clause that we find in English is the interrogative if-clause (cf. Kayne 1991 and Bhatt & Pancheva 2006 for a discussion).

\[
(146) \quad \text{interrogative if-clauses (e.g. Kayne 1991, Bhatt & Pancheva 2006)}
\]
\[
\text{I wonder [if the Duke sleeps in this bed].}
\]
Finally, it has been proposed that there is a further category, so-called non-logical if-clauses. (147) This is the category I will be focusing on. While not addressed by Iatridou (1991) or Bhatt & Pancheva (2006), these have been discussed in Carstairs (1973), Williams (1974), Fabricius-Hansen (1980), Steriade (1981), Pullum (1987), Schmid (1987), Pesetsky (1991), Rothstein (1995), Leonarduzzi (2004), Juguet (2008) and Rau (2008). Non-logical if-clauses differ from (logical) hypothetical conditionals as follows. While they do have a 'logical' reading, illustrated in (147b), they have an additional 'non-logical' reading, illustrated in (147c) (though we will see that there are concerns with the paraphrase in (147c)). This non-logical reading entails that in (147a+c) the speaker would be happy about Bill being here, i.e. the antecedent proposition is subject matter of the speaker’s happiness. The logical reading of (147a), in (147b), does not entail that the speaker would be happy about Bill being here, (147b) is compatible with a scenario where the speaker hates for Bill to be here, but at the same time profits from Bill being here in some indirect way.

The obvious question to be asked is which of the constructions in (143)-(147) is most similar to an if optative. Three options can be discarded straightforwardly. First, if-optatives cannot be interrogative if-clauses. This follows from the fact that cross-linguistically languages that obligatorily differentiate between interrogative if (i.e. whether) and conditional if require the latter in optatives. This is illustrated for German in (148) and (149).

(148) Ich frage mich, ob er kommt.
I ask myself whether he comes.

(149) a. Ich frage mich, ob er kommt.
*Ich frage mich, wenn er kommt.
I wonder if he’s going to come.

(147) non-logical if-clauses, complement if-clauses (e.g. Williams 1974, Pesetsky 1991)

a. I would be happy [If Bill was/were here].

b. logical reading: If Bill were here, I would be happy as a consequence.

c. non-logical reading: I would be happy that Bill was here, if he were.

(adapted from Williams 1974:157, Pesetsky 1991:60)
b. Ich frage mich, ob wenn er gekommen wäre.
   I ask myself whether if he come were
   ‘I wonder if he would have come.’

(149)a. Wenn / * ob er nur kommt!  
   if whether he only comes
   ‘If only he comes!’

(149)b. Wenn / * ob er nur gekommen wäre!
   if whether he only come were
   ‘If only he had come!’

Similarly, if-optatives cannot be assimilated to factual conditionals or relevance conditionals. Consider first example (150). The factual conditional in (150a) presupposes that there is evidence that it was already four o’clock when John left. Clearly, an optative like (150b) does not presuppose that anyone believes in the truth of the proposition expressed in the if-clause.

(150)a. If it was already four o’clock when he left, John will never make it.

   (Haegeman 2003:322)

   b. If only John had left at three o’clock!

Consider now the relevance conditional in (151a); informally speaking, the if-clause ‘if you need anything’ imposes a restriction on the speech act performed by the matrix clause – the speaker’s introducing herself as Jill is only relevant in circumstances where the hearer needs something. Again, this is not how optatives work; in (151b), the if-optative does not impose restrictions on some (covert / implied) speech act50.

(151)a. If you need anything, I’m Jill.

   (Franke 2007)

   b. If only he had needed something/*anything!

50 As indicated, optatives also differ from relevance conditionals (and other conditionals) with respect to their licensing of polarity items. I will come back to this observation soon.
We can conclude that optatives are not *if*-interrogatives, factual conditionals or relevance conditionals.

The remaining two candidates are much less easily evaluated. I argue that optatives are more like non-logical conditionals than like logical conditionals\(^{51}\). As such, they behave like complement clauses, expressing a subject matter of desire. Consider first the sample *if*-optative in (152).

(152) Oh, *if* I had only not come to Petershof!
    (Beatrice Harraden. 1893. Ships That Pass In The Night.)\(^{52}\)

Assuming that (152) expresses a simple wish or positive evaluation, we can paraphrase it both in terms of a *logical hypothetical conditional*, as in (153), and by means of a *non-logical if-clause*, as in (154). (These are merely examples of what (152) could mean; I do not attribute any explanatory power to the choice of paraphrase; (154) might just as well be construed as *It would be preferable / better / great / wonderful ...* )

(153) *sample logical paraphrase of (152)*
    *[If I had not come to Petershof,] everything would be fine.*

(154) *sample non-logical paraphrase of (152) (based on Williams 1974, Pesetsky 1991)*
    *It would be good [if I had not come to Petershof].*
    \[\equiv\] *It would be good [that I didn’t come to Petershof], if I hadn’t.*

Another, more concise, example of the two possible interpretations is given in (155).

(155)a. *If only* I were rich!
    b. *logical analysis:* If I were rich, all would be well as a consequence.
    c. *non-logical analysis:* If I were rich, it would be a good thing that I am rich.

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\(^{51}\) The idea to analyze optatives as non-logical conditionals was inspired by a paraphrase (*it would be nice if ...*) that David Stifter (p.c.) volunteered for an optative construction in German.

\(^{52}\) http://www.gutenberg.org/files/12476/12476-8.txt
To show that optatives are more appropriately paraphrased as in (155b) (and not as in (155a)), we can now turn to diagnostics from the literature. The discussion in the following sections is based on correlations in the behavior of *if*-optatives and different *if*-clauses. I assume the heuristic view that correlations in behavior may reflect parallel underlying structures.

### 4.1.3.1 On Polarity in Optatives

In this chapter, I show that negative polarity items are dispreferred in both non-logical *if*-clauses that express a positive evaluation and in *if*-optatives. Consider first the case of non-logical *if*-clauses. Pullum (1987) credits Karina Wilkinson for the observation in (156); while logical *if*-clauses allow for Negative Polarity Items (and Free Choice Items, cf. Horn 1972, Ladusaw 1979, Carlson 1981), non-logical *if*-clauses disallow them.

(156)a. That panel drops down [if *anyone* pulls this lever]. *logical if-clause*

   b. It would be preferable [if *anyone* pulled this lever]. *non-logical if-clause*

(Pullum 1987)

Pesetsky (1991) corroborates this observation with further examples, pointing out an asymmetry between right-peripheral and left-peripheral *if*-clauses. Only the right peripheral ones disallow NPIs, (157)-(159). I will not be concerned with this asymmetry, as my main interested is in possible parallels between (157a), (158a) and (159a) and optatives.

(157)a.* I would like it [if *anyone* were to ask me about the painting].

   b. [If *anyone* were to ask me about the painting], I would like it.

(Pesetsky 1991:61)

(158)a.* I will love it [if John *ever* looks at his books again].

   b. [If John *ever* looks at his books again], I will love it.

(Pesetsky 1991:61)
(159)a. *I would appreciate it [if Sue were to budge an inch].
   b. [If Sue were to budge an inch], I would appreciate it.
   
   (Pesetsky 1991:61)

Two other caveats that Pesetsky introduces can be stated as follows. The anti-NPI-licensing effect of non-logical if-clauses is dependent on the it in the matrix clause not being coreferent with some contextually given entity, as shown in (160). This is presumably due to the fact that (160) is understood as a garden-variety logical conditional. When exploring judgments and intuitions, this confound should always be controlled for.

(160)Q: How do you like the response, to your painting?
A: I would like it better [if anyone were to ask me about the painting].
   
   (Pesetsky 1991:61)

Pesetsky also points out that non-logical if-clauses merely fail to license NPIs. They do not block NPI licensing by a higher negative element, as shown in (161).

(161)a. I would not like it [if anyone were to ask me about the painting].
   b. I would hate it [if anyone were to ask me about the painting].
   
   (Pesetsky 1991:61)

The core observation in this section is that optatives behave like right-peripheral non-logical if-clauses. The observation that optatives do not allow for Negative Polarity Items is due to Gärtner (2010). Gärtner does not discuss non-logical if-clauses or draw the parallels that I am drawing. Relevant examples are given for German in (162). As shown in (162a), logical if-clauses allow for an NPI such as je ‘ever’, whereas non-logical if-clauses disallow je ‘ever’, (162b). The crucial observation is that optatives, (162c+d), pattern like non-logical if-clauses and unlike logical if-clauses. Naturally, in optatives that contain particles such as doch and nur ‘only’, the particles may conceivably act as interveners, blocking certain NPIs, such as je(mals) ‘ever’. To control for this, I include example (162d), without clause-medial particles.
(162)a. *logical if clause*

Wir hätten gefeiert, [ wenn die Red Sox je(mals) gewonnen hätten].
we had celebrated if the Red Sox ever won had
‘We would have celebrated [if the Red Sox had ever won].’

b. *non-logical if clause*

Es wäre besser, [ wenn die Red Sox (?je / *jemals) gewonnen hätten].
it were better if the Red Sox ever won had
‘It would be better [if the Red Sox had (?ever) won].’

c. *independent if-optative with particles*

Wenn die Red Sox doch nur (? je / ?jemals) gewonnen hätten!
if the Red Sox DOCH only ever ever won had
‘[If only the Red Sox had (?ever) won]’

d. *independent if-optative without particles*

Ach, wenn die Red Sox (? je / ?jemals) gewonnen hätten!
oh if the Red Sox ever ever won had
‘[Oh, if the Red Sox had (?ever) won]’

For English, the same contrast can be reproduced. The if-optative in (163c) disallows NPIs, like the non-logical if-clause in (163b) and unlike the logical if-clause in (163a). Strikingly, optative conditionals also pattern like independent if-optatives, cf. (163d), supporting a view where they consist of an if-optative followed by an implicitly conditionalized declarative clause, cf. section 2.1.2.

(163) *Context: For years, John was living in an old house, not knowing that there was a gremlin in the old decorative box in his room that didn't seem to open. John never tried to pry it open. One day the gremlin came out and ate John’s cat.*

a. *logical if-clause*

If John had (ever) opened that box, he would have noticed the gremlin in it.

b. *non-logical if-clause*

It would have been good if John had (?ever) opened that box.

c. *independent if-optative*

If only John had (?ever) opened that box!

d. *optative conditional*

If only John had (?ever) opened that box, he would have noticed the gremlin in it.
Note that the degradation of (163b) is surprisingly less strong than that of (163c+d). This is presumably due to the fact that constructions with a non-logical if-clause always have a reading where the if-clause is understood as a logical if-clause (and the matrix it is forced to refer to something in the context). If this is the right way of interpreting the pattern, the observed correlation (NPIs are bad in optatives and in non-logical if-clauses) is evidence that optative if-clauses behave like non-logical if clauses rather than like logical if clauses, and they do so quite consistently.

Given that only is by and large obligatory in English if-optatives, we cannot exclude the possible confound that ill-formedness is due to intervention effects in (163c+d), as given schematically in (164). However, such an intervention analysis seems implausible, given that only itself typically acts as an NPI licensor, (165).

(164) NPI-licensor … only(intervener) … ever

(165)a. **Only** one person said anything.
   b. # One person said anything.

Another example that shows the inability of optatives to license NPIs or free choice items (FCIs) is given in (166).

(166)a. If he had said something/anything, the machine would have recorded it.
   b. If only he had said something/?*anything!

The crucial patterns can thus be summarized as follows. While logical conditionals allow for NPIs and FCIs, optatives and non-logical if-clauses disallow them. The contrast between non-logical and logical if-clauses seems to be independent from positive evaluation, as we saw in the contrast between (167a) and (167b), which both involve positive evaluation.
(167)a.  non-logical if-clause (with non-referential “it”)
   
   * I would like it [if anyone were to ask me about the painting].  
     (Pesetsky 1991:61)  

b.  logical if-clause (with referential “it”)
   
   Q:  How do you like the response, to your painting?  
   A:  I would like it, better [if anyone were to ask me about the painting].  
     (Pesetsky 1991:61)

This parallel between if-optatives and non-logical if-clauses may thus indicate some underlying parallels between the two constructions. The question that arises is why these two types of if-clauses ban NPIs and FCIs. It has been observed previously that embedded factive clauses allow for such elements when the embedding predicate expresses a negative evaluation, but not when it expresses a positive evaluation.

(168)a.  I’m sorry [that I ever met him].

b.* I’m glad [that I ever met him].  
     (Linebarger 1987:328, brackets are mine)

If we assume that non-logical if-clauses involve complementation in the sense that the if-clause is at some level of representation a complement of the matrix predicate, Linebarger’s judgments in (168) mirror Pesetsky’s in (169).

(169)a.  I would hate it [if anyone were to ask me about the painting].

b.* I would like it [if anyone were to ask me about the painting].  
     (Pesetsky 1991:61, brackets are mine)

If we assume that NPIs are licensed in the complement of negatively evaluative predicates but not in the complement of positively evaluative predicates, the parallel between (168) and (169) should follow from a theory in which non-logical if-clauses are complement if-clauses, (170), as well as from a Pesetsky-Williams style analysis where non-logical if-clauses undergo some copying process as in (171).
(170)a. I would **hate** it [if **anyone** were to ask me about the painting].

b.* I would **like** it [if **anyone** were to ask me about the painting].

(171)a. I would hate it [if **anyone** were to ask me about the painting].

⇒ I would hate (it) that **anyone** asks me about the painting if **anyone** were to ask me about the painting.

b.* I would like it [if **anyone** were to ask me about the painting].

⇒ I would like (it) that **anyone** asks me about the painting if **anyone** were to ask me about the painting.

Similarly, given that optatives appear to express a wish, we could treat optatives as non-logical *if*-clauses with a positively evaluative matrix predicate; this is illustrated in (172b+c), where I **WOULD LIKE IT** symbolizes the matrix operator that selects the denoted proposition as its complement. (172b) is the type of analysis that I am arguing for (see also Kyriakaki 2007, 2008, 2009), positing a generalized EX instead of I **WOULD LIKE IT**; an alternative understanding of (172b) would be that I **WOULD LIKE IT** is an elided matrix clause; I argue against such a view in section 4.1.4.

(172) a. If only John had (*?*ever) opened that box!

b. *complementation analysis (sketch):*

I **WOULD LIKE IT** [if only John had (*?*ever) opened that box]!

c. *Pesetsky-Williams style analysis (sketch):*

I **WOULD LIKE IT** that John (*?*ever) opened that box if he had ever opened that box.

With respect to (172c), the data in section 4.1.4 indicate that the positive evaluation in an optative cannot be in the scope of an adjunct clause; this suggests that such an analysis (with the *if*-clause taking scope over EX) is unmotivated.

While it is beyond the scope of this section to provide a general analysis of non-logical *if*-clauses, it can be argued that the Pesetsky-Williams style analysis in (171)
seems to yield an incorrect meaning anyway. For simplicity, assume that (173a) and (173b) are synonymous, which allows us to use a standard lexical entry for be glad from Villalta (2007), based on Heim (1992).

(173) a. It is good [that Bill is here].
   b. I am glad [that Bill is here].

Under the Pesetsky-Williams analysis, (174a) would have the LF in (174b).

(174) a. It would be good [if Bill were here].
   b. [would [if Bill were here] [it be good [that Bill is here]]].

Assuming the (slightly simplified) standard lexical entries in (175a+b), we derive the truth conditions in (175d).

(175) a. \[\|\text{it be good that } p\| = \lambda w. \forall w' \in \text{Dox}_{\text{speaker}}(w) \quad [\text{Sim}_w(\text{Dox}_{\text{speaker}}(w) \cap p) >_{\text{speaker},w} \text{Sim}_{w'}(\text{rev}_p(\text{Dox}_{\text{speaker}}(w)) \cap \neg p)]\]

where
- Sim$_w$(W) is the set of worlds contained in W that are maximally similar to w’
- Dox$_{\text{speaker}}$(w) is the set of worlds compatible with what the speaker believes in w
- >$_{\text{speaker},w}$ means ‘more preferable to the speaker in w’
- rev$_p$(Dox$_{\text{speaker}}$(w)) contains all worlds in Dox$_{\text{speaker}}$(w) as well as the p-worlds most similar to w

In words: “All p-worlds that are most similar to the actual world according to the speaker’s knowledge and beliefs are better than all of the most similar ¬p worlds”

b. \[\|\text{would}\| = \lambda p . \lambda q . \lambda w . \forall w' [w' \in \text{Sim}_w(\text{Dox}_{\text{speaker}}(w) \cap p) \rightarrow q(w')]\]

In words: “All p-worlds that are most similar to the actual world according to the speaker’s knowledge and beliefs are also q-worlds”

c. \[\|\text{if } p\| = \|p\|\]

d. \[\|\text{would(if } p\)(it be good that that } p\)|| = \lambda w. \forall w' [w' \in \text{Sim}_w(\text{Dox}_{\text{speaker}}(w) \cap p) \rightarrow \forall w'' \in \text{Dox}_{\text{speaker}}(w') \quad [\text{Sim}_{w''}(\text{Dox}_{\text{speaker}}(w') \cap p) >_{\text{speaker},w'} \text{Sim}_{w''}(\text{rev}_p(\text{Dox}_{\text{speaker}}(w')) \cap \neg p)]\]

In words: see (176a)
In words, (175d) derives a meaning for (174b) that can be paraphrased as in (176a) – importantly, the positive evaluation only holds in the counterfactual worlds in which Bill is here. Crucially, what (174a) actually means is (176b), where the positive evaluation holds in the actual world, but this is not what we derive\(^\text{53}\).

\[(176) \quad \text{a. All else being equal, if we were in a world in which } [p \text{ Bill is here}], \text{ then (and only then) it would be the case that } [p \text{ Bill being here}] \text{ is better than } [\neg p \text{ Bill not being here}]. \text{(derived incorrectly by (175d))} \]

\textbf{b. It is the case in the actual world, that, all else being equal, if we were in a world in which } [p \text{ Bill is here}], [p \text{ Bill being here}] \text{ would be better than } [\neg p \text{ Bill not being here}]. \text{(not derived by the above analysis)}

This problem does not hinge on the lexical entries in (175a+b), but stems from the fact that the evaluative matrix predicate itself is embedded in the scope of the modal and thus counterfactual (i.e. the evaluation does not take place in the actual world – it only takes place in the counterfactual worlds that the modal quantifies over).

\[(177) \quad [if \ p \ [\text{it would be preferable / good / wonderful [that } p]]]\]

The conclusion that \textit{it would be good if } p \textit{ is not equivalent to if } p \textit{ then it would be good that } p \textit{ is corroborated by the following contrast. Example (178a) is consistent as I don’t want John to be here in the actual world, while I may benefit from it if he were here in worlds where he is here. In contrast, example (178b) is contradictory, as the second clause (it would be nice if he were here) seems to entail that in the actual world I want John to be here.}

\(^{53}\) See also von Fintel & Iatridou (2008) for further discussion of the distinction between desires that hold in the actual world, as in (176b), and desires that hold in counterfactual worlds, as in (176a).
(178)a. It’s not the case that I want John to be here, but if he were here, it would be nice that he’s here.

b. It’s not the case that I want John to be here, but it would be nice if he were here.

This suggests that such an account may not be on the right track, i.e. more needs to be said in any case, supporting an alternative view where non-logical if-clauses may after all be complement if-clauses.

Returning to optatives, I henceforth assume that an analysis like (179b) is on the right track, and, more specifically, I propose the generalized exclamation operator EX as in (179c). (Section 4.1.4 provides evidence against a matrix clause deletion analysis.)

(179) a. If only John had (?*ever) opened that box!
   b. I WOULD LIKE IT [if only John had (?*ever) opened that box]!
   c. EXS [if only John had (?*ever) opened that box]!

One thing that is important to point out is that the scalar EX operator may not behave uniformly with respect to NPI licensing. Reconsidering Linebarger’s (1987:328) examples, on which (180) is based on, it is plausible that I’m glad is the scalar antonym of I’m sorry, i.e. scale orientation seems to matter for NPI licensing.

(180)a. I’m sorry [that I (ever) met him].
   ⇒ All else being equal, worlds in which I met him are lower on my preference/desirability scale than worlds in which I didn’t meet him.

b. I’m glad [that I (*ever) met him].
   ⇒ All else being equal, worlds in which I met him are higher on my preference/desirability scale than worlds in which I didn’t meet him.

We thus expect EX utterances to vary in their behavior, depending on which scale EX combines with. As shown in (181), be surprised / amazed / astounded all license NPIs. These predicates can be assumed to involve an inverse likelihood scale (cf. Villalta 2007).
(181)a. She was surprised/amazed that there was any food left.
   b. I’m / I was surprised that he budged an inch.
   c. We were astounded that she lifted a finger to help considering her reputation for laziness.

(Linebarger 1987:328,340,362)

I have argued that polar exclamatives are EX utterances where EX combines with an inverse likelihood scale. We thus expect them to differ from optatives in their NPI licensing behavior. Consider first a baseline example of an utterance that has an optative reading and a polar exclamative reading.

(182)a. Mensch, dass dieser Kandidat einmal einen Förderpreis erhalten hat!
     man that this candidate once a grant received has
    ‘Man, that this candidate has once received a grant!’

b. scenario for optative reading
   We are auditioning different candidates for a new job. So far, none of our candidates has ever received a grant. We are tired and desperate and really hope that the candidate who is about to enter has received a grant at least once.
   paraphrase: ‘[Let’s hope] that this candidate has once received a grant!’

c. scenario for polar exclamative reading
   We are auditioning different candidates for a new job. Our last candidate was a complete disaster and we consider him completely incompetent. However, he has received a grant once in his career, which shocks us. After he leaves, we express our shock (and dismay) at this fact.
   paraphrase: ‘[It’s shocking] that this candidate has once received a grant!’

Based on the above discussion, we predict the following. If we replace einmal ‘once’ by the NPI je(mals) ‘ever’, the optative reading should disappear, but the polar exclamative reading should still be possible. This is exactly what we find, as given in (183).
Mensch, dass dieser Kandidat je(mals) einen Förderpreis erhalten hat! ‘Man, that this candidate has ever received a grant!’

* optative reading
✓ polar exclamative reading

The observation is supported by the fact that future-oriented statements of this sort become deviant with an NPI, as future-orientation typically clashes with the factivity found in polar exclamatives. This is shown in (184).

Mensch, dass der nächste Kandidat je(mals) einen Förderpreis erhalten hat! ‘Man, that this candidate has ever received a grant!’

*optative reading / ?# polar exclamative reading

The baseline example without NPI is given in (185), which clearly contrasts with (184).

Mensch, dass der nächste Kandidat einmal einen Förderpreis erhalten hat! ‘Man, that this candidate has at least once received a grant!’

✓ optative reading / ?# polar exclamative reading

These facts thus support a view where optatives (and polar exclamatives) involve a covert EX operator and NPI licensing properties derive from the type of scale that EX combines with. However, this is a good point to emphasize that these facts are also compatible with a matrix clause deletion approach (where polar exclamatives contain an elided I’m surprised that and optatives contain an elided It would be good if). I argue against such an option in section 4.1.4. Before doing so, I discuss more parallels between non-logical if-clauses and if-optatives in the following sections, arguing that they further support a view that treats optatives as some type of complement clause.
4.1.3.2 On Inversion in Optatives

Having argued that optatives, like non-logical conditionals, quite generally do not allow for NPIs, a second argument can be made in favor of treating optatives on a par with non-logical conditionals, as cases where the denoted proposition provides the subject matter of emotion (Pesetsky 1994) for a higher emotive predicate.

The relevant observation for non-logical conditionals is that their potential for V-to-C movement (conditional inversion, cf. Iatridou & Embick 1994) is limited if they are in the indicative mood (cf. Reis & Wöllstein 2010 for German). Native speakers of Dutch and German observe contrasts such as the following. Dutch allows for conditional inversion in indicative conditionals that have a logical reading, shown in (186).

(186) Dutch logical conditional

a. Als het water onder deze lijn zakt, wordt de verwarming uitgeschakeld.  
   if the water below this line sinks is the heating turned off  
   ‘If the water drops below this line, the heating will turn off.’

b. Zakt het water onder deze lijn, wordt de verwarming uitgeschakeld.  
   sinks the water below this line is the heating turned off  
   ‘If the water drops below this line, the heating will turn off.’

Contrastively, such conditional inversion is constrained in indicative conditionals with a non-logical reading, shown in (187).

(187) Dutch non-logical conditional

a. Als Otto vandaag thuis blijft, is het beter.  
   if Otto today at home stays is it better  
   ‘If Otto stays at home today, it’s better.’

b. ?? Blijft Otto vandaag thuis, is het beter.  
   stays Otto today at home is it better  
   ‘If Otto stays at home today, it’s better.’

The same effect can be reproduced for German, shown in (188) and (189).
Crucially, indicative *if*-optatives behave like non-logical *if*-clauses and not like logical *if*-clauses. Conditional inversion is impossible, as shown in (190) for Dutch and in (191) for German. Presumably the reason that the effect is so much stronger here is due to the possibility of treating the non-optative *if*-clauses in (187) and (189) as logical conditionals.
This is further evidence that *if*-optatives behave like non-logical *if*-clauses rather than like logical *if*-clauses, namely as constructions where the denoted proposition is treated as ‘complement’ to some higher operator (which I implement by positing $EX$).

The question arises, once again, how to derive the contrast between optatives and non-logical *if*-clauses on the one hand, and logical *if*-clauses on the other hand. I will discuss these facts in chapter 5. For now, it suffices to state that indicative conditionals that allow for conditional inversion are marked in that they have specific properties / restrictions different from other conditionals (cf. Iatridou & Embick 1994, Reis & Wöllstein 2010).

4.1.3.3 On Morphological Tense and Mood in Optatives

Further support for grouping *if*-optatives with non-logical *if*-clauses may be drawn from mood matching effects (which plausibly relate to sequence of tense effects). German and English differ in the following way. Only German allows for indicative non-counterfactual optatives (although Rifkin 2000 and Biezma 2011ab report that a subset of English speakers allow for these, too); this is shown in (192).

\begin{enumerate}
\item [(192)a.] (%)\textbf{If} only it \textbf{snows} today!
\item [(192)b.] \textbf{Wenn es heute nur schneit!}
\end{enumerate}

In contrast, both languages allow for counterfactual optatives. These can be past-oriented, like (193), or non-past-oriented, like (194).
For now, let us make the auxiliary assumption that if-optatives always behave as if they were embedded under a subjunctive matrix clause, like it would be nice. I will not literally assume that this is the case, but rather assume that mood choice in if-clauses is sensitive to embedding material (which may come in the form of a matrix clause or in the form of a higher operator such as EX), see also chapter 5. The difference between English and German can then be reduced to language specific requirements on mood selection. In German, (195a) is grammatical, even though the matrix clause is in the subjunctive and the if-clause in the indicative (a ‘mood mismatch’). Crucially, the indicative if-optative in (195b) is equally grammatical in German.

In contrast, in English, (196a) is judged ungrammatical or at least degraded. This correlates with the ungrammaticalcy of (196b). The fact that some speakers accept (196b) may then correspond to the observation that some speakers accept (196a) (though a thorough investigation of this matter is necessary in future research).
Naturally, if the *if*-clause is in the subjunctive, as in the minimally contrasting example (197a), no such issue arises, as the two clauses then match in their mood. This correlates with the grammaticality of (197b).

\[(197)a.\]  
It would be nice [if it *snowed* today].  
\[(197)b.\]  
If only it *snowed* today!

Naturally, the German examples in (198) are equally acceptable. These are given for completeness’ sake.

\[(198)a.\]  
Es wäre schön, [wenn es heute *schneien würde*]!  
‘It would be nice [if it snowed today].’

\[(198)b.\]  
Wenn es heute nur *schneien würde*!  
‘If only it snowed today!’

What (195)-(197) show is that the possible mood specifications in optatives correlate with the mood specifications that are possible in an *if*-clause that is subordinated to the subjunctive matrix clause *it would be nice*. Evidently, this is another correlation between non-logical *if*-clauses and *if*-optatives, supporting the view that *if*-optatives are some type of complement clause.

A challenge to this view arises from the stipulation that *EX* behaves like a subjunctive matrix clause in terms of the mood that it imposes on its *if*-clause complement. One might wonder why *EX* cannot behave like an indicative matrix clause. Crucially, example (199) shows that non-logical *if*-clauses are generally degraded in the scope of indicative matrix clauses, so even if *EX* was to pattern on a par with such clauses, the results would be the same. We can thus conclude that optatives (which I analyze as *EX*-utterances) pattern on a par with non-logical *if*-clauses when it comes to mood selection in the *if*-clause.
Logical *if*-clauses have no restriction of this type, as shown in (200b), which is perfectly grammatical. These observations thus provide further support for grouping *if*-optatives with non-logical *if*-clauses,

(200)a. [If it *snowed* today], we would have a lot of fun.

b. [If it *snows* today], we will have a lot of fun.

Concluding that *if*-optatives and non-logical *if*-clauses have similar mood selection requirements, we can also conjecture that there should be a cross-linguistic correlation between the absence of mood matching in non-logical conditionals and the possibility of indicative *if*-optatives. We predict that only languages that do not require the subjunctive in non-logical *if*-clauses allow for indicative *if*-optatives.

Comparing Serbian/Croatian to Czech, we find evidence that this is a correct prediction. In Serbian (and Croatian), we observe that non-logical conditionals can be in the present tense indicative, as shown in (201b).

(201)a. Bilo bi dobro [da je padala kisha danas]. *Serbian*

*was subj good that is fallen rain today*

‘It would be good if it rained today.’

b. Bilo bi dobro [da pada kisha danas].

*was subj good that falls rain today*

‘It would be good if it rains today.’

As predicted, indicative optatives are possible, as shown in (202b).

(202)a. Da je samo padala kisha danas! *Serbian*

*that is only fallen rain today*

‘If only it rained today!’

---

54 However, compare Pesetsky’s (1991:65) example in (i).

i. I will love it [if John never looks at his books again].
b. Da samo pada kisha danas!
   that only falls rain today
   ‘If only it rains today!’

Contrastively, Czech exhibits a behavior like in English; as shown in (203b), present tense indicative is not possible in a non-logical if-clause.

(203)a. Bylo by dobré [kdyby dnes pršelo].
   was subj good if today rained
   ‘It would be good if it rained today.’

b.* Bylo by dobré [když dnes prší].
   was subj good if today rains
   ‘It would be good if it rains today.’

Again, we predict correctly that Czech does not allow for indicative if-optatives, (204b+c).

(204)a. Kdyby jen dnes pršelo!
   if only today rained
   ‘If only it rained today!’

b.# Když dnes jen prší.
   if today only rains
   ‘If it only rains today..’ (incomplete statement with narrow focus)

c.* Když jen dnes prší.
   if only today rains
   ‘If only it rains today!’

The difference between Serbian/Croatian and Czech thus mirrors the difference between German and English. These facts support the cross-linguistic generalization that languages exhibit a correlation between the possibility of indicative if-optatives and the possibility of indicative non-logical if-clauses in combination with subjunctive-marked matrix clauses. This is a further parallel between the two types of constructions, which follows if the mood selection properties of if-clauses are identical in the scope of EX and in the position of a non-logical if-clause.
4.1.3.4 On the Range of Functions for EX-Utterances

Further motivation for approximating if-optatives to non-logical if-clauses stems from the fact that non-logical if-clauses typically express some type of Subject Matter of Emotion (Pesetsky 1991, 1994). This observation goes back to Williams (1974); it is illustrated in (205) and (206): Evaluative predicates like shame(ful) and sorry can combine with a non-logical if-clause, but non-evaluative predicates like unlikely and convinced cannot do so.

(205)a. It would be a shame / *unlikely [if Bob left].
   b. It is shameful / unlikely [that Bob left].
   (adapted from Williams 1974:158)

(206)a. I would be sorry / *convinced [if Bob left].
   b. I am sorry / convinced [that Bob left].
   (adapted from Williams 1974:158-159)

Pullum (1987) gives a selection of examples that contain a non-logical if-clause and express a positive evaluation, given in (207).

(207)a. It would be preferable [if Kim were not informed].
   b. It might be better [if I were not here when Lee returned].
   c. It will be great [if Tracy is there].
   d. It would be wonderful [if unicorns existed].
   e. I would be grateful [if Kim were not informed].
   f. It would be a good thing [if Kim were not informed].
   g. I would prefer it [if Kim were not informed].
   h. Wendy would appreciate it [if she were left alone from now on].
   i. I would really dig it [if you tickled my toes].
   j. I wouldn’t object to it [if you left early].
   k. Lee would be quite happy about it [if you borrowed the car].
   l. Would you be comfortable with it [if we stayed an extra day]?
   m. I hope you wouldn’t have any problem with it [if Dana were invited].
   n. The Dean would be appreciative of it [if his desk were returned].
   (Pullum 1987)
The link to optatives is obvious, as optatives express a positive evaluation. Example (208a) seems similar in meaning to example (207d). In the same vein, example (208b) corresponds to (207h), and example (208c) to example (207n).

(208)a. If only unicorns existed!
   b. If only she were left alone from now on!
   c. If only his desk were returned!

What is more, in addition to independent if-optatives, we find other types of independent if-clauses in German, which correspond to the other functions of non-logical if-clauses. Assuming that optatives express positive evaluation, let us now consider negative evaluation.

Assume that there is an “anti-optative”, or rather, as I will call it, an adversative. (Again this is a purely descriptive concept.) An adversative utterance can then be defined as an utterance that expresses disgust, rejection, dislike or reprimand without containing a lexical item that means disgust, rejection, dislike or reprimand. We can then start looking for (independent) if-adversatives, defined as conditional antecedents that can be used in an adversative utterance and are not accompanied by an overt matrix clause. While we do not find if-adversatives in English, German does seem to have such constructions, illustrated in (209a) and (209b). Scholz (1991) treats the two types as fundamentally distinct in function, but for our purposes such a distinction is not motivated; both express a negative evaluation, as illustrated by means of the paraphrase in terms of a non-logical if-clause. Example (209a) is used to express a reprimand; example (209b) is used to express dislike, rejection or disgust.

(209)a. Wenn du ihn halt auch so lange hast warten lassen!
        if you him HALT also so long have wait let
        lit. ‘Well, if you had to make him wait for so long!’
        ≈ ‘Of course he’ll hate it [if you make him wait for so long]!’

(Scholz 1991:45, translations and paraphrases are mine)
b. Mein Gott! Der Olaf! Wenn ich den schon sehe!  
my God the Olaf if I him already see  
lit. ‘My God! Olaf! If I just see him!’  
≈ ‘It makes me sick [if I see Olaf]!’  
(Scholz 1991:48, translations and paraphrases are mine)

Non-logical if-clauses that express a negative evaluation are shown in (210).

(210)a. It would be a shame [if Bob left].  
(Williams 1974)  
b. I would consider it odd [if he left].  
c. I’d complain about it [if our coffee break were shortened].  
d. Kim would be cut up over it [if our coffee break were shortened].  
(Pullum 1987)

In sum, we have so far seen that unembedded if-clauses can express a positive or negative evaluation, and so can non-logical if-clauses.

To complete the typology of independent if-clauses and non-logical if-clauses, we can also define admirable utterances as utterances that express surprise, irony, doubt or sarcasm without containing a lexical item that means surprise or doubt. An (independent) if-admirative is then an if-clause that acts as an admirable utterance without an accompanying matrix clause. German seems to have such if-admiratives, as illustrated in (211), with a paraphrase that employs a non-logical if-clause. (In a way, these clauses may be just labeled if-exclamatives, which is the label that I will use later on.)

(211) Wenn das mal keine guten Nachrichten sind.  
if that MAL no good news are  
‘Well, if this isn’t good news!’  
≈ ‘It would surprise me [if this isn’t good news].’  
(Scholz 1991:43, translations and paraphrases are mine)

Non-logical if-clauses that serve the purpose of evaluating whether something is surprising or unsurprising are found in the literature, as shown in (212).
(212)a. It wouldn’t **surprise** me [if she came].
(Jackendoff 1977)

b. It would **surprise** me [if she were able to accept].
(Pullum 1987)

To conclude, I have shown in this section that exclamations (which plausibly all involve the \(EX\) operator) exhibit the same range of variation as non-logical \(if\)-clauses. Their function is to express the subject matter of emotion to some (null) predicate, which I take to be \(EX\) in the case of exclamations.

### 4.1.3.5 Interim Summary

In this section, I have argued that there is quite generally a correlation in behavior between \(if\)-optatives and non-logical \(if\)-clauses (as opposed to logical \(if\)-clauses). First, both types of \(if\)-clauses disallow NPI items. Second, both non-logical \(if\)-clauses and \(if\)-optatives in Dutch and German disprefer conditional inversion. Third, both types of constructions correlate in their constraints on mood marking. Fourth, and finally, both types of constructions are typical for contexts where the \(if\)-clause is understood as the *Subject Matter of Emotion* (Pesetsky 1991, 1994). I interpret this connection as indicating that \(if\)-optatives are complements of some higher predicate, in the same way in which non-logical \(if\)-clauses may be treated as complement \(if\)-clauses. As it stands, there are different options of how to implement such a view, one of which employs matrix clause deletion. In the next section, I will show that there is evidence against matrix clause deletion, i.e. the higher predicate cannot be a null attitude verb. By contrast, I argue for a generalized exclamation operator \(EX\), which performs the function of semantically embedding the expressed proposition.

### 4.1.4 Optative clauses do not involve matrix clause deletion

In this section, I argue that even though optatives behave like complement clauses (see section 4.1.3), they are not embedded in a larger matrix clause. In other words, they do
not contain an unpronounced (or ‘elided’) matrix clause. This means that the embedding operator \((Op\) in \((142)\)) cannot be an attitude verb in a higher clause, against \((213a)\); by contrast, I argue that this operator is located in the left periphery of the optative clause itself, as shown in \((213b)\).

\[(213)\] Sub-Claim 2: Optatives are truly unembedded utterances

a. the wrong analysis:

\[
\begin{array}{c}
\times [\text{VP} \ldots V [\text{CP} \text{Daß / Wenn er doch nur rechtzeitig gekommen wäre!}]] \\
\end{array}
\]

that if he doch only in.time come were

‘If only he had come in time!’

b. the right analysis:

\[
\begin{array}{c}
\checkmark [\text{Exc}EX [\text{CP} \text{Daß / Wenn er doch nur rechtzeitig gekommen wäre!}]] \\
\end{array}
\]

that if he doch only in.time come were

‘If only he had come in time!’

Let me first provide some background on the issue at stake. The question of whether matrix clause deletion exists is a general problem for linguistic theory, which arises whenever we encounter utterances that have the morphosyntax of embedded clauses (e.g. an overt complementizer), but the distribution of matrix clauses. Example \((214a)\) (from Evans 2007:373) is perceived to be an if-optative without an optative particle. (We will come back to this in chapter 6.) Example \((214b)\) is a corresponding that-optative. Both clauses have the morphosyntax of embedded clauses (complementizer \(\text{wenn} ‘\text{if}’\) or \(\text{dass} ‘\text{that}’\), and absence of verb-second movement), but they both can occur without an overt matrix clause. This phenomenon is descriptively subsumed under the term \(\text{insubordination}\) (Evans 2007, Cable 2009, 2010ab).

\[(214)a. \text{Wenn ich deine Statur hätte!}
\text{if I your build had}

‘[Oh!] If [only] I had your build!’

b. \text{Dass ich deine Statur hätte!}
\text{that I your build had}

‘[Oh!] That I had [but] your build!’
Evans (2007) argues that insubordination involves the reconstruction of an omitted matrix clause. This is illustrated in (215a) (from Evans 2007:373; formatting and glossing convention are mine) and (215b).

(215)a. [Es wäre schön,] Wenn ich deine Statur hätte!
it were lovely if I your build had
‘[It would be lovely] if I had your build.’

b. [Ich wünschte,] Dass ich deine Statur hätte!
I wish that I your build had
‘[I wish] I had your build.’

The question that is most relevant for our purposes is whether we are dealing with ellipsis of the familiar type (subsuming different configurations such as VP ellipsis, sluicing or fragment answers, see Merchant 2001 for an overview). Such ellipsis should have a structural reflex, which can be detected, i.e. the elided material should be present in the syntax and simply remain unpronounced at PF. I will call such a view the deletion hypothesis, which contrasts with the independence hypothesis that if-optatives and that-optatives do not involve unpronounced material of this type. In the next section, I provide a novel argument to show that if-optatives and that-optatives do not involve deletion of a matrix clause at PF. I will then review previous arguments that corroborate my proposal. I conclude that we cannot be dealing with ellipsis of the familiar type; the facts support the independence hypothesis and not the deletion hypothesis.

4.1.4.1 The core argument against matrix clause deletion

In this section, I propose a novel argument against a deletion analysis of both if-optatives and that-optatives. The core premise is that an adverbial clause can take scope over a matrix clause if and only if that matrix clause is syntactically projected; therefore, if there is an unpronounced matrix clause in an if-optative or that-optative, any adverbial should be able to take scope over it that can otherwise scope over its overt counterpart. (This diagnostic is based on Ross 1970, Lakoff 1970:172-173, see also Levinson 1983:249.)
Consider first two examples that allow for weil ‘because’ to take scope over a conditional clause. (216a) is clearly a logical conditional, whereas (216b) arguably has a non-logical reading. The weil ‘because’ clause can take scope over either matrix clause.

(216)a. [Alles wäre gut, wenn Hans gekommen wäre.] weil er immer guten Wein mitbringt.

‘All would be well if Hans had come, because he always brings good wine.’

✓ because he always brings good wine > [all would be well if Hans had come]

b. [Es wäre besser, wenn Hans gekommen wäre.] weil er immer guten Wein mitbringt.

‘It would be better if Hans had come, because he always brings good wine.’

✓ because he always brings good wine > [it would be better if Hans had come]

The logic of the following tests is that weil ‘because’ clauses should be able to take scope over the positive evaluation component of an if-optative (or that-optative) if the positive evaluation is encoded by means of an elided matrix clause. These tests can be carried out independently of whether the if-clause is a logical if-clause, (216a), or a non-logical if-clause, (216b). I will show that optatives cannot involve matrix clause deletion no matter whether they are analyzed as logical or non-logical if-clauses, i.e. this proposal is independent from the proposal in section 4.1.3.

Before carrying out these tests, I consider it necessary to qualify the diagnostic and show why this diagnostic cannot be straightforwardly applied to English. The problem is that there is a variant of weil ‘because’ clauses that occurs much more freely and unrestricted than what is required by the diagnostic outlined above (easily detectable in German as it requires verb second); I will call these weil-clauses free adverbials. Such free-adverbial because-clauses can seemingly modify anything, even secondary speech acts, as shown in (217a), where the because-clause modifies the secondary speech act (cf. Levinson 1983 for a discussion) and not the literal meaning; crucially, in German, free-
adverbial *because*-clauses require verb-second, as shown in (217a) versus (217b). In (217b), which is verb final, the free adverbial reading is blocked. For background on *weil*-V2-clauses, see Antomo & Steinbach (2010) and references therein.

(217)a. Könntest du mir bitte meinen Koffer runtergeben?, weil ich could you me please my suitcase pass.down because I have problems with my arm

‘Could you please lift down my suitcase?, because I have problems with my arm.’

✓ *because I have problems with my arm > [I ask you to [pass me my suitcase]]*

b.* Könntest du mir bitte meinen Koffer runtergeben?, weil ich could you me please my suitcase pass.down because I have problems with my arm

‘Could you please lift down my suitcase?, because I have problems with my arm.’

Another illustration is given in (218). Again, the verb-second *because*-clause in (218a) allows for a free adverbial interpretation, taking scope over the secondary speech act, whereas the verb-final *because*-clause in (218b) disallows such a reading.

(218)a. Warum nicht einmal Kant lesen?, weil davon schläft doch why not once Kant read because from.that sleeps DOCH jeder ein.

everyone v.prt

‘Why not read Kant?, because everyone falls asleep from doing that.’

✓ *because everyone falls asleep from reading Kant > [I recommend that you read Kant]*

b.* Warum nicht einmal Kant lesen?, weil davon doch why not once Kant read because from.that DOCH jeder einschläft.

everyone falls.asleep

‘Why not read Kant?, because everyone falls asleep from doing that.’
Having established this, the diagnostic can be formulated as follows. If a verb-final *because*-clause can take scope over the positive evaluation component of an *if*-clause that seems to express positive evaluation, we can conclude that there is an unpronounced matrix clause. If a verb-final *because*-clause cannot do so, we can conclude that there is no unpronounced matrix clause. Clearly, this does not work as straightforwardly for English, as we do not have a way (except for intonational cues) to block a free adverbial reading\(^{55}\).

Reconsider a baseline example of conditionals modified by a verb-final *because*-clause; our test examples will be based on this one. Example (219a) is a clear case of a logical conditional, whereas (219b) can be argued to have a non-logical reading. In both cases, the matrix clause can be in the scope of the *because*-clause, as indicated.

(219) a. Die Party wäre ein Erfolg gewesen, wenn Hans gekommen wäre, weil er immer guten Wein mitbringt.

‘The party would have been a success if Hans had come, because he always brings good wine.’

✓ *because he always brings good wine > [the party would have been a success if Hans had come]*

b. Es wäre besser gewesen, wenn Hans gekommen wäre, weil er immer guten Wein mitbringt.

‘It would have been better if Hans had come, because he always brings good wine.’

✓ *because he always brings good wine > [it would have been better if Hans had come]*

---

\(^{55}\) It is conceivable that other adverbials in English behave on a par with German verb-final *because* clauses. Two plausible candidates are clauses initiated by *contrary* (as in *contrary to what John said*) and adverbials such as *for obvious reasons*.
Consider now a case of an answer fragment, given in (220). Answer fragments quite uncontroversially involve deletion of the ‘topical part’ (i.e. the old information), Merchant (2004). Example (220a) shows that a verb-final because-clause can combine with a logical if-clause that is uttered in response to a question; example (220b) shows that a verb-final because-clause can combine with a non-logical if-clause, also in response to a question. This is predicted, given our above premise; we can consider this a confirmation of the proposed diagnostic. (In the LF line, I use strikethrough to mark unpronounced material present at LF.)

(220) a. A: Unter welchen Umständen wäre die Party ein Erfolg gewesen?
   under which circumstances were the party a success been
   ‘Under which circumstances would the party have been a success?’
   B: Wenn Hans gekommen wäre weil er immer guten Wein
      if Hans come were since he always good wine
      mitbringt.
      brings
      ‘If Hans had come, because he always brings good wine.’
   ✓ because he always brings good wine > [The party would have been a
   success if Hans had come]
   LF: [The party would have been a success if Hans had come], because he
    always brings good wine.

b. A: Was wäre besser gewesen?
   what were better been
   ‘What would have been better?’
   B: Wenn Hans gekommen wäre weil er immer guten Wein
      if Hans come were since he always good wine
      mitbringt.
      brings
      ‘If Hans had come, because he always brings good wine.’
   ✓ because he always brings good wine > [it would have been better if Hans
   had come]
   LF: [It would have been better if Hans had come], because he always
    brings good wine.
We can thus conclude that verb-final *because*-clauses can combine with a conditional that contains an elided matrix clause, taking scope over the entire construction. The same test can now be applied to *if*-optatives, in (221). Crucially, I argue that (221) shows that there is no elided matrix clause, as the *because*-clause cannot take scope over the positive evaluation. A possible alternative explanation might of course be that there is an unpronounced matrix clause that just conflicts with the relevant *because*-clause. However, given that positive evaluation makes propositions like ‘I would be happy’, ‘it would be good’ or ‘all would be well’ salient, these are the most likely contenders for an elided and contextually licensed matrix clause. All of these should be compatible with the *because*-clause, as shown in (220). The burden of the proof is thus on whoever argues in favor of matrix clause deletion to show that (221) is impossible because of the matrix clause that is filled in.

(221) Wenn Hans **doch nur** gekommen wäre (#weil er immer guten Wein mitbringt).

‘If only Hans had come (#because he always brings good wine).’

* because he always brings good wine > [I would be happy if Hans had come]
* because he always brings good wine > [it would be good if Hans had come]
* because he always brings good wine > [all would be well if Hans had come]

For completeness, it is useful to point out that the only possible reading for the *because*-clause is one where it takes narrow scope over Hans’s reason for coming. This reading for (221) is illustrated in (222), which is clearly bizarre, as Hans’s reason for coming can hardly be that he always brings good wine (though we might conceive of a context where this is good).
These examples show that adverbial clauses that combine with optatives cannot take scope over the positive evaluation; this indicates that the positive evaluation is not expressed by means of an unpronounced matrix clause. We can conclude that optatives do not contain an unpronounced matrix clause.

As a control example, (223) shows that the overt matrix clause in optative conditionals (defined as conditional clauses that contain a seemingly optative antecedent) can be in the scope of a because-clause. This may be taken to indicate that the facts in (221) do not just derive from a constraint that optatives may not be in the scope of because-clauses. (Alternatively, as I argue, cases like (223) might involve parenthetical if-optatives as opposed to truly embedded if-optatives, i.e. the because clause attaches directly to an implicitly conditionalized matrix clause, with a parenthetical if-optative.)

(223) [Alles wäre gut, wenn Hans **doch nur** gekommen wäre], weil all were good if Hans **DOCH** only come were since er immer guten Wein mitbringt. he always good wine brings ‘Everything would be alright if only Hans had come, because he always brings good wine.’

✓ **because he always brings good wine > [everything would be alright if Hans had come]**

Importantly, the present conclusion carries over to that-optatives. Example (224) shows that a verb-final because-clause can take scope over a matrix clause of the form *I wish.*
I wish Hans had come, because he always brings good wine.

Correspondingly, in the fragment answer in (225) the because-clause can take scope over an unpronounced matrix clause.

(225) A: Was würdest du dir wünschen?
   ‘What would you wish for?’
   B: Dass Hans gekommen wäre, weil er immer guten Wein mitbringt.
   ‘That Hans had come, because he always brings good wine.’
   ✓ because he always brings good wine > [I wish Hans had come]
   LF: [I wish that Hans had come], because he always brings good wine.

Again, in the that-optative, it is not possible to have a the because-clause with scope over the positive evaluation / wish, as shown in (226).

(226) Dass Hans **doch nur** gekommen wäre, (#weil er immer guten Wein mitbringt.
   ‘That Hans had but come, (#because he always brings good wine).’
   ✓ I wish > because he always brings good wine > [Hans had come]

As a final note, it is worth pointing out that even nicht-dass-clauses, which are a type of order/command, seem to be truly unembedded (though they cannot be used as answers to
any questions, which is why the following paradigm is deficient). The ill-formed example (227c) contrasts with the well-formed (227a) in that (227a) allows the verb-final weil-clause to scope over the expression of my desire, whereas (227c) doesn’t allow this. Again, the verb-second weil-clauses in (227b) and (227d) are the control cases.

(227) a. **Ich will nicht dass** du wieder soviel trinkst,
    I want not that you again so.much drink
    ***weil*** die Mama dann wieder mit mir ***schimpft***!
    because the mum then again with me scolds
b. **Ich will nicht dass** du wieder soviel trinkst,
    I want not that you again so.much drink
    ***weil*** die Mama ***schimpft*** dann wieder mit mir!
    because the mum ***schimpft*** then again with me
c. **Nicht dass** du wieder soviel trinkst,
    not that you again so.much drink
    ***weil*** die Mama dann wieder mit mir ***schimpft***!
    because the mum then again with me scolds
d. **Nicht dass** du wieder soviel trinkst,
    not that you again so.much drink
    ***weil*** die Mama ***schimpft*** dann wieder mit mir!
    because the mum ***schimpft*** then again with me

‘(I) don’t (want) you to get so drunk again, because mum always scolds me!’

In brief, we can conclude that German exhibits a broad paradigm of truly unsubordinated clauses with the syntax of subordinated clauses. Most crucially, we can conclude that neither *if*-optatives nor *that*-optatives contain an unpronounced matrix clause expressing the positive evaluation that they convey. In connection with the fact that optatives seem to behave like complement clauses, I proceed to argue that there is an operator (EX) in the left periphery of an optative clause, which takes the core clause as its complement. Before doing so, let us however review two previous arguments against matrix clause deletion, posited by Scholz (1991) and Rifkin (2000), which corroborate the present claim.


4.1.4.2 Further evidence against matrix clause deletion: Scholz (1991)

Scholz (1991) quotes several earlier proponents of the deletion hypothesis\(^{56}\) (see also Evans 2007); she points out that their main argument is circular in that the authors base their arguments for matrix clause deletion on the fact that optatives have the morphosyntax of embedded clauses. To illustrate, Scholz (1991:7) considers (228c-h) as possible reconstructed consequents for the if-optative in (228a) and its counterpart with V-to-C movement in (228b). She attributes (228c+h) to Kasper (1987:108-109)\(^{57}\).

(228)

(a) Wenn du mir (doch nur) geholfen hättest, …
   if you me DOCH only helped had
   ‘If (only) you had helped me, …’

(b) Hättest du mir (doch nur) geholfen, …
    had you me DOCH only helped
    ‘Had you (only) helped me, …’

c. … dann wäre mein Wunsch erfüllt. ≈ speaker’s desire
   then were my wish fulfilled
   ‘… then my wish would have been fulfilled.’

d. … dann hätte ich, was ich wünschte. ≈ speaker’s desire
   then had I what I wish
   ‘… then I would have what I wish for.’

e. … dann wäre ich froh. ≈ speaker’s desire
   then were I happy
   ‘… then I would be happy.’

f. … dann wäre es gut. ≈ general welfare
   then were it good
   ‘… then it would be good.’

g. … dann könnte ich endlich weiterarbeiten. ≈ reason-specifying
   then could I finally continue, working
   ‘… then I could finally go on working.’


\(^{57}\) As Truckenbrodt (2006a) points out, a matrix clause deletion analysis also suffers from the problem of recoverability. This problem is particularly clear in (228): How can the elided content be recovered from the context?
h. ... dann wären wir endlich allein. \( \approx \) reason-specifying  
then were we finally alone  
‘... then we’d finally be alone.’

Scholz’s main criticism is that such consequents are actually incompatible with the particles that are prototypical for optatives. This is illustrated in (229a) versus (229b).

(229)a. Ach, wenn es **doch nur** mich getroffen hätte!  
oh if it DOCH only me hit had  
‘Oh, if only I had been hit!’

(229)b. Ach, wenn es (*doch nur) mich getroffen hätte, wäre das halb so  
oh if it DOCH only me hit had were that half as  
schlimm gewesen.  
bad been  
‘Oh, if only I had been hit, it would be half as bad.’

(Scholz 1991:9)

Scholz (1991) assumes two independent premises that lead to the same conclusion. First, discourse particles like *doch* only occur in unembedded clauses\(^{58}\), indicating that (229a) should for this reason alone be considered unembedded. Second, she assumes that if a construction is elliptical, it should be possible to add the deleted material back in without complications, in contrast to what we see in (229b). Scholz concludes that optatives do not involve reconstruction of a consequent. She makes the same argument for *that*-optatives, based on the intuitions in (230).

(230)a. Ach, dass es **doch nur** mich getroffen hätte!  
oh that it DOCH only me hit had  
‘Oh, if only I had been hit!’

\(^{58}\) Scholz bases this assumption on Thurmair (1989:50), Altmann (1987:28). Scholz also states the more general assumption that discourse particles diagnose ‘syntactic or at least functional’ independence. This seems to be more correct than the assumption that they diagnose an utterance as unembedded, but then the presence of discourse particles cannot be taken to be an argument against the deletion hypothesis.
b. Ich wünschte, dass es (*doch nur) mich getroffen hätte.
   I wish that it DOCH only me hit had
   ‘I wish it had hit me.’
   (Scholz 1991:9)

Unfortunately, Scholz’s argument has several shortcomings, two of which I here address. First, there are conceptual problems with the argumentation; specifically, the premises cannot be accepted as they stand. On the one hand, it has by now clearly been falsified that discourse particles diagnose a construction as unembedded. Bayer (2001) and Coniglio (2009) argue that discourse particles are rather characterized as ‘root phenomenon’; Bayer (2001), and more extensively Coniglio (2009), show that such particles can occur in various embedded contexts, such as in the complements of non-factive predicates. On the other hand, the premise that it must be possible to re-enter elided material without any problem cannot be upheld either. English VP-Ellipsis, as illustrated in (231a), is a familiar example where the unelided construction is not composed of the elided structure plus the missing material, cf. (231b), but rather of a fusion of the two, cf. (231c).

(231)a. Sue met the president, and Mary did [meet the president], too.
   b. ?? Sue met the president, and Mary did meet the president, too.
   c. Sue met the president, and Mary met the president, too.

One may analyze (231) as a case where the marked did licenses the deletion; by analogy, optatives might just be cases where the particles license the deletion (and must be omitted in the absence of deletion, where they are uninformative).

The second problem with Scholz’s arguments is empirical. There are clear counter-examples to the generalization that optative if-clauses cannot be integrated into a matrix clause, shown in (232), which are natural occurrences from the internet.

59 A claim that I do not endorse but that I will not attempt to falsify either, as it is orthogonal to the present discussion.
(232)a. [Wenn ich **doch nur** könnte], **würde** ich mehr als einen Hund
zu**hause** haben!
If I **DOCH only could** would I more than one dog
at home have

‘If only I could, I would have more than one dog at home!’

oh if I **DOCH only could** would I immediately with you work

‘Oh, if only I could, I would immediately start working with you.’

c. [Wenn ich **doch nur** könnte], **würde** ich sofort kommen.
if I **DOCH only could** would I immediately could

‘If only I could, I would come immediately.’

Naturally, with respect to (232), it is worth ruling out an alternative explanation where
the purported matrix clause in (232a-c) is a verb-first clause (with sentence-initial **würde**
‘would’). An argument against this alternative explanation can be made, based on (233).
If desiderative contexts allowed for verb-first clauses, omission of dann ‘then’ in the
second clause of (233) should be possible. This indicates that the **if**-clause in (232a-c)
really occupies the pre-verb-second position

(233)Ich wünschte, ich könnte.*(Dann) **würde** ich sofort bei dir arbeiten.
I wish I could then would\textsubscript{V2} I immediately with you work

‘I wish I could. I would immediately start working with you.’

Coming to an independent shortcoming of Scholz’s discussion, Scholz seems to
presuppose that **if**-optatives correspond to logical **if**-clauses (e.g. (234a)) rather than to
non-logical **if**-clauses (e.g. (234b))

(234)a. [If you had helped me], then my wish would have been fulfilled.

b. It would be nice [if you had helped me].

\[\text{But see \textit{Axel \& Wöllstein (2008) and Reis \& Wöllstein (2010) who argue for true V1 clauses in German.}}\]

\[\text{Scholz does consider the option in (i), extracted from (228f) above. However, this is a case where the **if**-clause that may be non-logical is left-peripheral. As Pesetsky (1991) shows, such **if**-clauses do not exhibit one of the landmark features of non-logical **if**-clauses, namely the ban against Negative Polarity Items. This might indicate that again we are dealing with a normal logical **if**-clause after all.}\]

\[\text{i. [If you had helped me], then it would be good.}\]
This is not as such a problem for Scholz’s argument, as non-logical if-clauses are incompatible with optative particles as well, (235), but it is important to make this explicit.

(235) Es wäre schön, [CP wenn du mir (*doch nur) geholfen hättest].
    it were nice if you me DOCH only helped had
    ‘It would be nice, if (*only) you had helped me.’

In any case, while Scholz’s argument corroborates my own argument against matrix clause deletion, it is necessary to raise awareness of the conceptual problems and the existing counter-examples. I will now review Rifkin’s arguments against matrix clause deletion in English and show that it also corroborates my own proposal.

4.1.4.3 Further evidence against matrix clause deletion: Rifkin (2000)

Rifkin’s (2000) arguments are based on the following premise: If if-optatives contain an unpronounced consequent, they should be able to do everything that a conditional can do. Rifkin shows that this is not the case and concludes that if-optatives do not contain a phonetically null matrix clause.

Rifkin’s first argument is that if-optatives cannot be conjoined with regular conditionals, as shown in (236b), contrasting with (236a). It follows that if-optatives are not equivalent to conditionals with an unpronounced consequent.

(236)a.  [If Sue had time, she would ski Mt. McKinley], and [if she had money, things would be good].

b.* [If Sue had time, she would ski Mt. McKinley], and [if only she had money].
    (based on examples from Rifkin 2000; modified to create a minimal pair)

Crucially, this does not reflect a general prohibition against conjoined optatives, as shown in (237).

(237) [If only Meg had brought a corkscrew] and [if only Jim had made a decent salad].
    (Rifkin 2000)
We can extend Rifkin’s argument as follows. While he does not test his argument for non-logical conditional constructions, the following examples indicate that these behave the same way. (238a) shows that the ungrammaticality of (236b) (repeated in (238b)) is not due to a parallelism constraint on conjoining a logical conditional with a non-logical conditional. Example (238a) is wellformed in spite of the lack in parallelism (i.e. the first conjunct is a logical conditional and the second conjunct has a non-logical reading).

(238)a.  [If Sue had time, she would ski Mt. McKinley], and [it would be good if she had money].
   b.* [If Sue had time, she would ski Mt. McKinley], and [if only she had money].

Importantly, (239b) shows that an optative cannot be conjoined with a non-logical conditional either, while two non-logical conditionals can be conjoined, cf. (239a).

(239)a.  [It would be good if Sue had time] and [it would be great if she had money].
   b.* [It would be good if Sue had time] and [if only she had money].

Rifkin’s second argument against deletion is that if-optatives cannot be embedded under a higher matrix predicate, unlike regular conditionals, cf. (240b) versus (240a). Again, it follows that they are not equivalent to conditionals with unpronounced consequent.

(240)a.  Avi thinks that [if it would snow, things would be good].
   b.* Avi thinks that [if only it would snow].

  (Rifkin 2000)

We can now extend Rifkin’s second argument by showing that non-logical conditionals can be embedded without any problem, cf. (241).

(241)  Avi thinks that [it would be good if it would snow].

A crucial observation of Rifkin’s (2000) is that optative conditionals differ from if-optatives, as discussed in chapter 1. Example (242) shows that an optative conditional
can be conjoined with a non-optative conditional. In this regard, optative conditionals behave like regular conditionals.

(242)a. [If only Sue had money, things would be good], and [if she had time, she would ski Mt. McKinley].

(Rifkin 2000)

b. [If Sue had time, she would ski Mt. McKinley], and [if only she had money, things would be good].

(based on (242a))

Similarly, optative conditionals can also be embedded like regular conditionals, cf. (243).

(243) Avi thinks that [if only it would snow, things would be good].

(Rifkin 2000)

Rifkin’s arguments can be easily extended to cover other languages, such as German, as shown in (244). Example (244a) illustrates an optative conditional embedded under sagen ‘say’. This contrasts with the impossibility of embedding an independent if-conditional under sagen ‘say’, shown in (244b).

(244)a. Kein vernünftiger Mensch würde jemals sagen, [dass er die no sane human would ever say that he the Zeit zurückdrehen würde und alles anders machen würde, time turn.back would and all different make would wenn er doch nur könnte].

if he DOCH only could

‘No sane person would ever say [that he could turn back time and do everything differently, if only he could].’

b. * Kein vernünftiger Mensch würde jemals sagen, [wenn er nicht no sane person would ever say if he doch nur die Zeit zurückdrehen und alles anders machen könnte].

DOCH only the time turn.back and all different make could

‘[No sane person would ever say [that if only she could turn back time and do everything differently]].’
Before critically evaluating Rifkin’s proposal, it can be pointed out that overall it corroborates my own proposal that optatives do not involve matrix clause deletion. The case of optative conditionals (i.e. conditionals that contain a seemingly optative antecedent) will have to be treated separately. One intuitive way of analyzing them might be to assume that the optative antecedent is parenthetical of sorts, i.e. (242), (243) and (244) involve simple embedding and conjunction of the main clause, which is parenthetically modified by an optative clause.

Having outlined Rifkin’s arguments, concerns need to be raised with respect to the conclusion that Rifkin draws. Rifkin’s data do not probe directly for the presence of unpronounced structure; a possible alternative explanation for Rifkin’s findings is that contextually licensed deletion is infelicitous in conjunction or embedding structures. This concern is corroborated by intuitions such as (245) and (246). In (245b), conjoining the elliptical imperative from (245a) with a non-elliptical imperative seems degraded (as opposed to (245c)).

(245) Context: The hearer just picked up a poisonous mushroom and wants to taste it.
   a. Don’t!
   b. *Don’t, and wash your hands!
   c. (?) Don’t put it in your mouth, and wash your hands!

Similarly, in (246a), embedding the same elliptical imperative is degraded with respect to its overt counterpart in (246b).

(246) Context: The hearer wants to pick up a white mushroom from John’s desk.
   a. ?? Wait! John said don’t!
   b. (%)* Wait! John said don’t touch these mushrooms!

Finally, we notice that true answer fragments cannot be embedded under attitude predicates either, even though they are clearly elliptical, posing a more significant problem for Rifkin’s theory. This is shown in (247c), which is the elliptic variant of
(247b), as shown in (247a). For some reason, true matrix clause deletion that gives rise to fragment answers is not possible in embedded answers.

(247)  a.  A:  Under which circumstances would the party have been fun?
       B:  (The party would have been fun) if John had come.

       b.  A:  Under which circumstances would the party have been fun?
            B:  Avi thinks that [the party would have been fun if John had come].

       c.  A:  Under which circumstances would the party have been fun?
            B:  * Avi thinks that [if John had come].

While it is worth noting that Rifkin’s proposal has these shortcomings, it is clearly compatible with my own proposal as outlined above.

Concluding this section, it can be observed that Rifkin (2000) raises an interesting puzzle, which can be outlined as follows. For some reason, an optative antecedent cannot be conjoined with a regular antecedent, as shown in (248a) versus (248b).

(248a).* [If only Sue had money(,) and if she had time], she would ski Mt. McKinley.

       b.  [If Sue had money and if she had time], she would take up extreme skiing.

(Rifkin 2000)

The data in (248) are puzzling independently of Rifkin’s findings. As a baseline, both examples in (249) are grammatical, and we have seen that optative conditionals can be conjoined with regular conditionals, cf. (242).

(249)  a.  [If only Sue had money], she would ski Mt. McKinley.

       b.  [If she had time], she would ski Mt. McKinley.

Therefore, (249a) and (249b) should be able to act as the input for right-node raising / backward conjunction reduction, shown in (250). This indicates that (248) must be bad for reasons not connected to the elliptical / non-elliptical status of the optative if-clause.

(250)  If only Sue had money, she would ski Mt. McKinley,
       and if she had time, she would ski Mt. McKinley.
For now, I conjecture that (250) is impossible (and thus (248) ungrammatical), because we cannot always do right-node raising across fundamentally different types of meaning (expressive vs. declarative meaning). While the optative conditional in the first conjunct is expressive (section 4.1.6), the non-optative conditional in the second conjunct is purely descriptive; I assume that this causes a conflict. These interactions between optative utterances and non-optative utterances raise another potential worry with respect to Rifkin’s conclusions, namely that his examples merely reflect constraints on the combinability of the two types of meaning.

### 4.1.4.4 Interim Summary

To summarize, I have addressed a fundamental question when dealing with optatives (and other types of unembedded clauses that have the morphosyntax of embedded clauses): Do they contain an unpronounced matrix clause or are they truly independent? I have argued for the latter. Both *if*-optatives and *that*-optatives are truly independent and do not involve matrix clause deletion. This can be shown based on a new argument that I construed, involving adverbial modification with a *because*-clause. I concluded that in German neither *if*-optatives nor *that*-optatives allow a verb-final (and thus integrated) *because*-clause to take scope over the positive evaluation that they express. This directly argues against a position where this positive evaluation is contributed by a matrix clause that is present at LF but unpronounced at PF. I have also critically evaluated Scholz (1991) and Rifkin (2000) and argued that, while their proposals have shortcomings that should not be neglected, they clearly corroborate my own proposal.

An interesting fact to be noted in this context (particularly as a follow up to the discussion of Rifkin 2000) is the following. While we find optative conditionals (i.e. conditionals that contain a seemingly optative *if*-clause antecedent), optative *if*-clauses cannot actually be part of a non-logical *if*-clause construction. This is shown in (251c+d), which contrast with (251a+b). While (251a+b) are instances of optative conditionals, (251c+d) are plainly ungrammatical.
(251) **Context:** For years, John was living in an old house, not knowing that there was a gremlin in the old decorative box in his room that didn't seem to open. John never tried to pry it open. One day the gremlin came out and ate John's cat.

a. *optative conditional with left-peripheral if-clause*
   
   [If only John had opened that box], he would have noticed the gremlin in it.

b. *optative conditional with right-peripheral if-clause*
   
   John would have noticed the gremlin in that box [if only he had opened it].

c. *right-peripheral non-logical if-clause*
   
   It would have been good [if (?*only) John had opened that box].

d. *non-logical if-clause*
   
   [If (?*only) John had opened that box], it would have been good.

It may superficially appear as a contradiction that optative antecedents cannot take the place of a non-logical if-clause even though I argued in detail that optative clauses should be analyzed on a par with non-logical if-clauses. However, this is actually expected under an analysis that assumes optatives to be truly independent. Assuming that optatives are independent utterances with a left-peripheral *EX* operator, and that they can be parenthetically linked to a matrix clause (which I mark by a purely descriptive symbol, ‘*•’), we get the following patterns, corresponding to the facts in (251). The reason for the ungrammaticality of (251c+d) with an optative (i.e. (252c+d)) is that the parenthetical optative cannot serve as the subject matter for the matrix clause, i.e. the utterances in contain an incomplete matrix clause, as given in (253). This is not the case in (252a+b)

(252)a.  
   
   [EX If only John had opened that box!] • He would have noticed the gremlin.

b.  
   
   John would have noticed the gremlin. • [EX If only he had opened that box!]

c.  
   
   * It would have been good. • [EX If only John had opened that box!]

d.  
   
   * [EX If only John had opened that box!] • It would have been good.

(253)  
   
   * out-of-the-blue

# It would have been good. (where it is non-referential!)
These facts are thus not only compatible with my analysis, but in a sense follow from my proposal. Concluding this section, I propose that optative clauses are clauses that contain a covert $EX$ operator in their left periphery, which takes the CP as its complement. This captures the fact that optatives have properties of complement clauses whereas they seem to be truly independent (i.e. they do not involve matrix clause deletion). A summary is given in (254).

(254) **Sub-Claim 1+2: Optatives contain a null operator in their left periphery**

$$[ExP \ EX \ [CP \ Daß / Wenn \ er \ doch \ nur \ rechtzeitig \ gekommen \ wäre!]]$$

that if he doch only in.time come were

‘If only he had come in time!’

The following sections will now outline the properties of $EX$ in some more detail.

### 4.1.5 Introducing $EX$ – An emotive operator

This section is concerned with the core property of $EX$ that it serves to express an emotive property of the speaker (similar to the $EXC$ of Gutiérrez-Rexach 1996, a loose predecessor). We can formulate the sub-claim in (255).

(255) **Sub-Claim 3:**

An utterance of $EX(ϕ)$ conveys that the speaker at the point of utterance has an emotion $ε$ (or at least an evaluative attitude $ε$) towards $ϕ$.

By assuming a uniform $EX$ operator across different types of exclamations, I argue against accounts for insubordination that assume conventionalized form-to-speech-act assignments, as sketched by Zaefferer (2006:344), who posits (256).

(256) **Orphan theory of German verb-final root clauses**

The different force potentials of German verb-final root clauses derive from the semantics of some former matrix structures with speech act participant subject.

(Zaefferer 2006:344)
Zaefferer emphasizes that this is not a matrix clause deletion analysis, but rather a view under which the meaning of a potential matrix verb has grammaticalized into the force potential of an insubordinated clause. My discussion is an elaboration on Truckenbrodt’s (2006b) informal rebuttal. The core issue with Zaefferer’s view is that such grammaticalization should be relatively unconstrained. In contrast, exclamations that involve insubordinated clauses do typically show the constraint for being emotive that I discuss in this section. In brief, I propose that EX utterances can express meanings similar to what we find in (257), but not meanings similar to what we find in (258). This follows if EX is inherently emotive, but it is not predicted by a grammaticization view such as Zaefferer’s.

(257)a. I would **prefer** it [if Kim were not informed].
   b. It would **surprise** me [if she were able to accept].
      (Pullum 1987, paraphrases mine, based on Williams 1974, Pesetsky 1991)
   c. I **dislike** it [that Kim was not informed].

(258)a. I am **convinced** [that John left].
   b. I **knew** [that there had been someone else in the room].
   c. I would have **known** [if there had been someone else in the room].

I consider unembedded *that*-clauses, *if*-clauses and V1-clauses in German, which can be shown to be compatible with different functions (e.g. an optative use and a use as polar exclamative). In what follows, I show that none of the functions associated with exclamations are non-emotional and non-evaluative, i.e. we do not find exclamations that express a meaning like (258).

Consider first a sample of an ambiguous *that*-clause, given in (259a). Unembedded *that*-clauses in German are quite generally ambiguous between a (polar) exclamative reading, as in (259b) and an optative reading, as in (259c). The readings are differentiated by means of the propositional content (e.g. past tense orientation biases an exclamative
reading over an optative reading), the context (since typically exclamatives are factive\textsuperscript{62} and optatives anti-factive, see chapter 5) and certain particles (see chapter 6). In a situation where we expected someone to oversleep but he didn’t, it is appropriate to utter (259a) as an expression of surprise, (259b). By contrast, in a situation where we are worried that this person might have overslept, but we have no way to find out if he did, it is appropriate to utter (259a) as an expression of a wish or hope, (259c).

(259)a. Mein Gott, \textbf{dass} der nicht \textbf{verschlafen hat}! \textit{that-exclamation}
my God, that he not overslept has
\textit{lit.} My God, that he didn’t oversleep!

b. \textit{polar exclamative paraphrase:} [It’s shocking] that he didn’t oversleep!

c. \textit{optative paraphrase:} [I hope] that he didn’t oversleep!

Similarly, V1-clauses with certain contrast markers (e.g. \textit{tatsächlich} ‘indeed’, unstressed \textit{doch}, the particle \textit{glatt} ‘outrightly’), (260a), have a polar exclamative reading, (260b), and an optative reading, (260c), see Scholz (1991)\textsuperscript{63,64}. In a situation where we know that the female subject (e.g. Mary) would have (under certain circumstances, e.g. if we hadn’t stopped her) given someone a book, I can express my shock by uttering (260a) to convey (260b). In contrast, in a situation where I know that she didn’t give someone the relevant book, I can express that I wish she had done so by uttering (260a) to convey (260c).

(260)a. \textbf{Hätte} die dem doch \textit{tatsächlich} das Buch \textit{gegeben}! \textit{V1-exclamation}
\textit{had}_{subj} she him doch indeed the book given
\textit{lit.} Had\textit{subj} she indeed given him the book!

(\textit{adapted from Scholz 1991:132-133, attributing the example to Norbert Fries})

b. \textit{polar exc. reading:} [It’s shocking that] she would have given him the book!

c. \textit{optative reading:} [I wish that] she had given him the book!

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\textsuperscript{63} Note the difference in mood between (260b), which in the English translation requires the modal \textit{would}, and (260c), which in the English translation has simple counterfactual past tense marking.

\textsuperscript{64} German also has V1-degree exclamatives (Rosengren 1992, Brandner 2010), which I will not discuss.
For *if*-clauses we can construct different examples that only differ in the particles that they use and in their polarity\(^{65}\). Consider (261a); in a situation where I hope that someone will behave like an idiot (because I might end up getting the job that we’re both applying for), I can use the optative in (261a) to express my desire. By contrast, in a different situation where someone is currently behaving like an idiot, I can use (261b) to express a negative evaluation\(^{66}\). A different situation is given in (261c), where the opposite of the expressed proposition is presupposed to be a fact, and (261c) is uttered to convey that this is remarkable in one way or another.

(261)a. Mensch, *wenn* der sich *nur* wieder blöd anstellung! *if-optative*
    man *if* he *self* only again stupid behaves
    *lit.* Man, if only he behaves stupidly again!
    ‘[I sincerely hope that] he will behave like an idiot again!’
    
    *context/background:* I don’t know how he’s going to behave this time.
    *expresses:* It would be good for me [if he behaves like an idiot].

b. Mensch, *wenn* der sich *auch* wieder blöd anstellung! *if-adversative*
    man *if* he *self* also again stupid behaves
    *lit.* Man, if he also behaves stupidly again!
    ‘[It is not good that] he’s behaving like an idiot again!’
    
    *context/background:* He’s behaving like an idiot again.
    *expresses:* I consider it bad [that he’s behaving like an idiot].

c. Mensch, *wenn* der sich *nicht* wieder blöd anstellung! *if-exclamative*
    man *if* he *self* not again stupid behaves
    *lit.* Man, if he isn’t behaving stupidly again!
    ‘[It’s remarkable that] he’s behaving like an idiot again!’
    
    *context/background:* He’s behaving like an idiot again.
    *expresses:* I consider it remarkable [that he’s behaving like an idiot].

---

\(^{65}\) Minimal pairs in this domain are difficult to construct and thus always seem slightly stilted, which should not distract from their admissibility.

\(^{66}\) This interpretation and the paraphrase are very coarse – partly, because this is not the focus of this dissertation. What (261b) actually conveys is that something bad is happening to the person mentioned in subject position and that it is unsurprising given that person’s bad behavior.
The fact that such utterances are inherently emotive and evaluative is reflected by the observation that the perceived emotion / evaluation cannot be easily canceled. To illustrate, in the polar exclamative in (262a), the surprise that is conveyed cannot be canceled, and in the optative in (262b), desirability cannot be canceled.

(262)a. Dass der nicht verschlafen hat!  
that he not overslept has  
‘[It’s shocking that] he didn’t oversleep!’

… # das war sowieso zu erwarten.  
that was anyway to be.expected  
‘That was to be expected anyway.’

b. Wenn der nur nicht verschlafen hat!  
if he only not overslept has  
‘If only he didn’t oversleep!’

… # das spielt jetzt auch keine Rolle mehr.  
that plays now also no roll anymore  
‘That doesn’t matter any more either.’

In contrast, the following examples show that regular if-clauses and that-clauses do not convey surprise or desirability in this way. (Note: I use das ‘that’ as a situational pronoun anaphoric to the circumstances denoted by the proposition expressed in the that-clause or if-clause.)

(263)a. Dass der nicht verschlafen hat, das war sowieso zu erwarten.  
that he not overslept has that was anyway to be.expected  
‘That he wouldn’t oversleep was to be expected anyway.’

b. Wenn der nicht verschlafen hat, das spielt jetzt auch keine Rolle mehr.  
if he not overslept has that plays now also no role more  
‘If he didn’t oversleep, that doesn’t matter any more either now.’

The crucial evidence for the emotive / evaluative nature of exclamations stems from the fact that no exclamations seem to have a non-evaluative / non-emotive reading. This is shown in (264)-(266). Example (264a) is a constructed unembedded that-clause that expresses the proposition that Bob left. This can be uttered as it stands, but what is crucial
is that it cannot have one of the two non-emotive paraphrases in (264b+c), while the paraphrases in (264d-f) are possible. The most plausible use of (264a) is one where the speaker expresses surprise, (264d), but optative readings are also conceivable, (264e), as well as adversative readings, (264f). This follows if possible uses must be emotive or evaluative.

(264) a. Dass der Bob gegangen ist!  
that the Bob left is  

lit. That Bob left!  

b.* intended paraphrase 1: It is likely / unlikely [that Bob left].  
c.* intended paraphrase 2: I am convinced [that Bob left].  
d.(✓ most plausible paraphrase: I am surprised [that Bob left].)  
e.(✓ conceivable paraphrase67: I hope [that Bob left].)  
f.(✓ conceivable paraphrase68: I am disappointed [that Bob left].)  

An analogous example is given in (265). The most plausible readings for (265a) are, again, a surprise reading, as given in (265c), and an optative reading, as given in (265d). The non-emotive/non-evaluative reading in (265b) is impossible.

(265) a. Dass sonst noch jemand im Zimmer ist!  
that else still someone in the room is  

lit. That someone else is in the room!  

b.* intended paraphrase: I know [that someone else is in the room].  
c.(✓ most plausible paraphrase69: I am surprised [that someone else is …].)  
d.(✓ marginally possible70: I hope [that someone else is in the room].)  

67 The positive evaluation paraphrase (I hope…) becomes more salient if we add nur ‘only’:
   i. Oh, dass der Bob nur gegangen ist!  
   ‘Oh, if only Bob has left!’
68 The negative evaluation paraphrase (I am disappointed…) becomes more salient if we add auch ‘also’:
   ii. Dass der Bob auch gegangen ist!  
   that the Bob also left is
69 The surprise reading can be supported by a suitable interjection, as in (i):
   i. Oh! Dass sonst noch jemand im Zimmer ist! (Ich dachte ich bin allein.)  
   ‘Oh that else still someone in the room is I thought I am alone
70 The optative reading can be supported by a suitable interjection and a particle, as in (ii):
   ii. Ach, dass nur sonst noch jemand im Zimmer ist!  
   ‘Oh that only else still someone in the room is
Counterfactual if-clauses like (266a) are particularly marked, as the intended non-emotive / non-evaluative paraphrase in (266b) is impossible, and optative readings, (266b), are marginal whenever they are not supported by particles, as discussed in chapter 6.

(266) a. #Wenn sonst noch jemand im Zimmer wäre!
    lit. If someone else was in the room!
    if else still someone in the room were
    * intended paraphrase: I would know [if someone else was in the room].
    c. (# marginally possible: I wish [that someone else was in the room].)

Based on these observations, I argue that exclamations must be evaluative or emotive and cannot express something that amounts to embedding a that-clause or if-clause under a non-emotive/non-evaluative predicate such as know, unlikely or convinced.

4.1.6 The EX operator is expressive

In the preceding section, I argued that EX is an emotive operator. This section is concerned with another core property of the EX operator, namely its expressive nature, as posited in (267) (cf. Kratzer 1999, Potts 2005, and related work).

(267) Sub-Claim 4:
    By uttering an utterance of EX(\psi), the speaker intends to express an emotion \epsilon, rather than describe \epsilon.

The idea is that EX combines with a truth-conditional argument (of propositional type <s,t>) and maps it onto felicity conditions; i.e. the resulting denotation is not truth-conditional, but rather ‘felicity-conditional’ (in the sense in which expressive meaning is sometimes assumed to constrain felicity of an utterance, cf. Kratzer & Matthewson 2009). More precisely, the idea is that application of EX to a proposition yields one-dimensional meaning of type E (defined as the type of expressive meaning). This is illustrated in (268a), contrasting with (268b).
(268) a. If only it rained!

b. Option 1: \[ \text{EX}_S(\text{rain}) : E \]
\[ \text{rain} : <st> \quad \text{EX}_S : <st, E> \]

c. Option 2 (rejected): \[ \text{rain} : <st> \quad \text{EX}_S(\text{rain}) : E \]
\[ \text{rain} : <st> \quad \text{EX}_S : <st, E> \]

Such onedimensionally expressive utterances have been argued for in Potts & Roeper (2006), who argue that expressive small clauses onedimensionally convey expressive meaning (of type \( E \)). This is illustrated for self-disapprobation expressive small clause in (269).

(269) a. \textit{to myself, after making a mistake}: You fool!

b. \[ \text{fool}(\text{you}) : E \]
\[ \text{you} : e \quad \text{fool} : <e, E> \]

(Potts & Roeper 2006)

This section is concerned with arguing both against an account that assigns (onedimensional) truth-functional meaning to \( EX \) utterances, and against an account that assigns multidimensional meaning to \( EX \) utterances (with an expressive and a descriptive, truth-functional) component.
4.1.6.1 On the non-truth-functionality of exclamations

Focusing on optatives, there are various arguments for the expressive nature of the EX operator. One of the first observation is that optatives are non-truth-functional utterances. They cannot be denied in the same way in which an assertion can be denied. Consider first an assertion in the indicative, (270), and then an assertion in the subjunctive, (271). As indicated, in both cases it is possible to deny or confirm the asserted statement.

(270) A: Otto kommt. – B: ✓ Das stimmt nicht. / ✓ Das stimmt.
   Otto comes that is.true not that is.true
   ‘Otto is coming.’ ‘That’s false.’ ‘That’s true.’

(271) A: Otto wäre gekommen (wenn du ihn nicht beleidigt hättest).
   Otto were come if you him not insulted had
   ‘Otto would have come (if you hadn’t insulted him).’
   B: ✓ Das stimmt nicht. / ✓ Das stimmt.
      that is.true not that is.true
      ‘That’s false.’ ‘That’s true.’

Optatives do not allow for such denial or confirmation, as shown in (272) and (273) (cf. Scholz 1991, Rifkin 2000). (I also include the judgmental expression Finde ich nicht ‘I don’t agree’ in (273), (275) and (277), which would seem suitable in this context.)

(272) A: Wenn Otto nur kommt! – B: # Das stimmt nicht. / # Das stimmt.
   if Otto only comes that is.true not that is.true
   ‘If only Otto is coming!’ ‘That’s false.’ ‘That’s true.’

(273) A: Wenn Otto nur gekommen wäre!
   if Otto only come were
   ‘If only Otto had come!’
   B:# Das stimmt nicht. / # Das stimmt. / # Finde ich nicht.
      that is.true not that is.true find I not
      ‘That’s false.’ ‘That’s true.’ ‘I don’t agree.’
This cannot be due to factors such as the fact that (272) and (273) contain *if*-clauses, as shown by (274) and (275), which can be denied and confirmed.

(274) A: Es ist besser, wenn Otto kommt.
      it is better if Otto comes
      ‘It is better if Otto comes!’
B: ✓ Das stimmt nicht. ✓ Das stimmt.
      that is.true not that is.true
      ‘That’s false.’ ‘That’s true.’

(275) A: Es wäre besser, wenn Otto gekommen wäre!
      it were better if Otto come were
      ‘It would be better if Otto had come!’
B: ✓ Das stimmt nicht. ✓ Das stimmt. ✓ Finde ich nicht.
      that is.true not that is.true find I not
      ‘That’s false.’ ‘That’s true.’ ‘I don’t agree.’

Similarly, answer fragments can be denied or confirmed (by a third party), indicating that this is not the problem either.

      what is better if Otto comes
      ‘What’s better?’ ‘If Otto comes.’
C: ✓ Das stimmt nicht. ✓ Das stimmt.
      that is.true not that is.true
      ‘That’s false.’ ‘That’s true.’

(277) A: Was wäre besser (gewesen)? – B: Wenn Otto gekommen wäre!
      what were better been if Otto come were
      ‘What would be / have been better?’ ‘If Otto had come!’
C: ✓ Das stimmt nicht. ✓ Das stimmt. ✓ Finde ich nicht.
      that is.true not that is.true find I not
      ‘That’s false.’ ‘That’s true.’ ‘I don’t agree.’
The examples in (278) and (279) show that *that*-optatives cannot be denied or confirmed either. Given that the modified clause expresses a wish, I also include *Ich nicht* ‘I don’t’ with the intended meaning of ‘I don’t wish for that.’ / ‘I don’t want that.’

(278) A: Dass Otto nur rechtzeitig kommt!
that Otto only in.time comes
‘If only Otto comes in time!’

B:
#Das stimmt nicht. / # Das stimmt. / # Ich nicht.
that is.true not that is.true I not
‘That’s false.’ ‘That’s true.’ ‘I don’t.’

(279) A: Dass Otto nur rechtzeitig gekommen wäre!
that Otto only in.time come were
‘If only Otto had come in time!’

B:
#Das stimmt nicht. / # Das stimmt. / # Ich nicht.
that is.true not that is.true I not
‘That’s false.’ ‘That’s true.’ ‘I don’t.’

It is worth noting that polar exclamatives cannot be denied or confirmed either, as shown in (280), where *Mich nicht* ‘Not me’ is intended to mean ‘It doesn’t surprise me.’.

(280) A: Dass der Hans heute nicht verschlafen hat!
that the Hans today not overslept has
‘[It’s shocking that] Hans didn’t oversleep today!’

B:
#Das stimmt nicht. / # Das stimmt. / # Mich nicht.
that is.true not that is.true me not
‘That’s false.’ ‘That’s true.’ ‘Not me.’

As shown in (281) and (282), corresponding paraphrases can be denied and confirmed.

(281) A: Es ist überraschend, dass der Hans heute nicht verschlafen hat!
it is surprising that the Hans today not overslept has
‘It’s shocking that Hans didn’t oversleep today!’
It can be inferred that optatives and polar exclamatives are not assertions, i.e. they are not truth-functional statements. I argue that, in fact, they are expressively utterances (as opposed to descriptive utterances). In terms Potts & Roeper (2006), I propose that the role of EX is to remove its complement from the level of descriptive at-issue meaning and shift it to the level of expressive meaning, i.e. an exclamation does not have descriptive content, (283b), but rather expressive content, (283c).

(283) a. If only I were rich!
   b. descriptive content (informal paraphrase): Ø
   c. expressive content (informal paraphrase): It would be good if I were rich.

Note that at this point, the observed facts are compatible with a view where the descriptive content of the optative utterance is truth-conditional, but simply not of type <s,t> (or t), as posited by Biezma (2011a), who treats optatives as <st,t> type expressions. It is thus worth turning to further arguments for the expressive nature of EX utterances.

### 4.1.6.2 Non-Embeddability: A Hallmark of Expressive Content and Exclamations

Showing that optatives and polar exclamatives cannot be affirmed or denied by a hearer supports a view under which such utterances are independent in the sense of Potts (2005, 2007), see also McCready (2009), i.e. such utterances contribute content at a level
different from descriptive at-issue meaning. Another hallmark of expressive meaning is
non-embeddability, which is connected to Potts’s criteria of *nondisplaceability* and
*perspective dependence* – expressive meaning is tied to an utterance situation and to
somebody’s perspective (which is typically the speaker’s perspective).

Potts & Roeper (2006) present data like (284b) and (285b) to argue that ‘expressive
small clauses’ are onedimensional expressive utterances.

(284)a.  *towards myself:* You fool!
               b.* I consider [you fool] / [me fool].
                   (cf. Potts & Roeper 2006)

(285)a.  (What,) Me worry?
               b.* I wonder / doubt [me worry].
                   (cf. Potts & Roeper 2006)

Rifkin’s (2000) example in (286b) shows parallel behavior: *if*-optatives, on a par with
expressive small clauses, cannot be embedded.

(286)a.  If only it would snow!
               b.* Avi thinks that [if only it would snow].
                   (cf. Rifkin 2000)

This issue deserves some further discussion, which the rest of this section is devoted to.
First of all, we have already observed that answer fragments, which are clearly truth-
functional and not expressive, cannot be embedded either, as repeated in (287).

(287)  a.  A: Under which circumstances would the party have been fun?
              B: (The party would have been fun) if John had come.

b.  A: Under which circumstances would the party have been fun?
              B: Avi thinks that [the party would have been fun if John had come].
c. A: Under which circumstances would the party have been fun?
   B: * Avi thinks that [if John had come].

The second issue that arises is that we have already seen that optative conditionals can be embedded, as in (288a).

(288)a. Avi thinks that [if only it would snow, things would be good].
   b.* Avi thinks that [if only it would snow].
   (Rifkin 2000)

A third issue that needs to be addressed is the following fact. A uniform approach to exclamations may be threatened by the observation that degree exclamatives can apparently be embedded (cf. Elliot 1971, Grimshaw 1979, Zanuttini & Portner 2000, 2003, and many others); Abels (2010) shows that the range of embedding constructions is rather large, as illustrated in (289). While an extension of the EX-Operator Approach to degree exclamatives is not in the scope of this dissertation, the possibility of such an extension seems conceptually desirable.

(289) a. Gun nuts can’t even wait for the shooter’s barrel to cool off before they jump in to assert [how very, very important it is that everybody get to have as many guns of any variety that they desire].
   b. People shake their heads and go on about [what a great tragedy the whole situation is].
   c. Now its time for a BBQ with Beer, Friends and lots of lies about [what a bad ass I am].
   (Abels 2010:146,153,155, crediting online sources; emphasis and brackets mine)

Let me first discuss the first two issues, i.e. the question to what extent if-optatives differ from other utterances in that they cannot be embedded, and the question to what extent optative conditionals are ‘embedded optatives’. I will then proceed to the third issue.
The logic that underlies the idea that expressive meaning cannot be embedded is that expressive meaning is commonly assumed never to be an argument with respect to functional application (Potts 2005, 2007), as shown in (290). Crucially, it follows from (290i-v) that there is no semantic type that has an expressive type in its domain. This entails that expressive meaning can never be in the scope of anything else in a clause – it cannot be truly integrated^71.

(290)  
   i.  $e$ and $t$ are regular types.  
   ii. $E$ is an expressive type.  
   iii. If $a$ and $b$ are regular types, then $<a,b>$ is a regular type.  
   iv. If $a$ is a regular type, then $<a,E>$ is an expressive type.  
   v. Nothing else is a type.  

(Potts & Roeper 2006)

If we turn to German, we observe that if-optatives indeed cannot be truly integrated into another construction. Quite generally, if-clauses in a conditional can occupy the pre-verb-second position, thus satisfying the verb second requirement (that the position preceding the fronted verb must be filled). Notably, optative antecedents cannot do so, as observed by Scholz (1991). This is shown in (291b), for the if-optative in (291a). Notably, appositives, which Potts (2005) analyses as expressions that yield multidimensional meaning, do not lead to ill-formedness, (291c). The observation in (291b) thus shows that the application of $EX$ to a proposition in an optative removes the proposition from the level of descriptive content (mapping it to the expressive level), confirming the unembeddability of optative clauses.

(291)a. Ach, wenn es **doch nur** mich getroffen hätte!  
   = oh if it **DOCH only me** hit had  
   = ‘Oh, if only I had been hit!’

^71 Note that I assume that the $EX$ operator combines with a scale and a proposition and yields expressive meaning, i.e. it requires an extension of (290) to include $<a,<st,E>>$ type expressions; however I concur in that there are no $<E,a>$ type expressions.
b. Ach, wenn es (*doch nur) mich getroffen hätte, wäre das halb so schlimm gewesen.
‘Oh, if only I had been hit, it would be half as bad.’
(Scholz 1991:9)

c. Ach, wenn es mich getroffen hätte, was ich mir sehr wünsche, wäre das halb so schlimm gewesen.
‘Oh, if I had been hit, which I wish very much, it would be half as bad.’

We now have to address the residual question of how to deal with the exceptions to this generalization (which one may call Scholz’s unembeddability generalization, see above). First, I have observed that there are rare instances of optative antecedents that are truly integrated into an optative conditional (meaning that they can occupy the pre-verb second position), one of which is given in (292) (a natural occurrence, found on Google).

(292) [Wenn ich doch nur könnte], würde ich sofort kommen.
‘If only I could, I would come immediately.’

Second, it has been suggested that optative conditionals (i.e. conditionals that appear to contain an optative antecedent) can be truly embedded, as observed by Rifkin (2000) for English, shown in (293).

(293) Kein vernünftiger Mensch würde jemals sagen, dass er die Zeit zurückdrehen würde und alles anders machen würde, wenn er doch nur könnte.
‘No sane person would ever say [that he would turn back time and do everything differently, if only he could].’
To deal with these counter-examples, I propose that such clause actually involve either a parenthetical use of an *if*-optative or a construction that I will call the *minimal sufficiency conditional* in chapter 6. These minimal sufficiency conditionals are conditionals that do not contain an *EX*-operator, but contain *nur* ‘only’ in a purely presuppositional reading. For now, I postpone this discussion to chapter 6, and I would rather like to emphasize the markedness of the counter-examples.

First, consider a number of optative conditionals from Asarina & Shklovsky (2008) and Rifkin (2000).

(294) a. If only I was rich (now), I would have a Porsche.
    b. If only it rained tomorrow, my roses would bloom.
       (Asarina & Shklovsky 2008:2+9)
    c. If only I had beaten Kasparov, I would have won 10000 dollars.
    d. If only I were rich, I would travel around the globe.
       (Rifkin 2000)

In German, none of these examples allows for the purported optative clause to be truly integrated into the matrix clause, in the sense that it could fill the pre-verb second position.

    if I doch only rich were then had I a Porsche  
    ‘If only I was rich, *(then) I would have a Porsche.’
    b. Wenn es morgen (doch) nur regnen würde, *(dann) würden meine 
    if it tomorrow doch only rain would then would my
    Rosen blühen.
    roses bloom
    ‘If only it would rain tomorrow, *(then) my roses would bloom.’
c. Wenn ich Kasparov (doch) nur geschlagen hätte, *(dann) hätte ich 10000 Dollar gewonnen.
   ‘If only I had beaten Kasparov, *(then) I would have won 10000 dollars.’

d. Wenn ich (doch) nur reich wäre, *(dann) würde ich um die Welt reisen.
   ‘If only I were rich, *(then) I would travel around the globe.’

In fact, the non-integration of optative antecedents must be even stronger than indicated by the punctuation in (295). As shown in (296), where ‘—’ marks a complete intonational break, the optative antecedent must be followed by a rather long intonational break. This is not necessary in regular conditionals.

(296) a. Wenn ich (doch) nur reich wäre! ???(—) Dann hätte ich einen Porsche.
   ‘If only I was rich ???(—) then I would have a Porsche.’
   b. Wenn ich (doch) nur reich wäre! ???(—) Ich hätte einen Porsche.
   ‘If only I was rich ???(—) then I would have a Porsche.’

I propose that apparent optative conditionals as in (294)-(296) typically involve two separate clauses, namely an if-optative and an (unconnected) implicitly conditionalized declarative clause (see also Kyriakaki 2007, 2008, 2009, who shares the core idea that the overt ‘antecedent’ and the overt ‘consequent’ are actually not connected). This view is supported by Rifkin’s (2000) insight that if-optatives can co-occur with a second overt antecedent, (297), something that is impossible in a regular conditional, (298).

(297) a. If only I had gotten there sooner … if I had, I could have saved him.
   b. If only I had gotten there sooner … because if I had, I could have saved him.
   (Rifkin 2000)
(298)  a. * If I had gotten there sooner … if I had, I could have saved him.
    b. * If I had gotten there sooner … because if I had, I could have saved him.

    (Rifkin 2000)

Rifkin’s observation follows from my proposal. I assume that the second overt antecedent is the implicit antecedent of an unconnected declarative, which in his examples is simply made overt. In other words, I assume that the examples in (294) simply have the structure in (299).

(299)  a. If only I was rich (now)! (Because if I was rich,) I would have a Porsche.
    b. If only it rained tomorrow! (Because if it did,) my roses would bloom.
    c. If only I had beaten Kasparov! (Because if I had,) I would have won 10000 dollars.
    d. If only I were rich! (Because if I were,) I would travel around the globe.

Returning to (292), repeated in (300a), which I analyze as a *minimal sufficiency conditional* (see chapter 6), it’s markedness becomes apparent when we modify it slightly; for instance, if we drop nur ‘only’ but keep doch, the construction degrades significantly, shown in (300b). This would be unexpected if (300a) was an unmarked optative construction, given that, for instance, (300c) is well-formed.

(300)  a. [Wenn ich **doch nur** könnte], **würde** ich sofort kommen.
    if I **DOCH** only could would I immediately could
    ‘If only I could, I would come immediately.’
    b. * [Wenn ich **doch** könnte], **würde** ich sofort kommen.
    if I **DOCH** could would I immediately could
    ‘If only I could, I would come immediately.’
    c. [Wenn ich **doch** könnte]! Ich **würde** sofort kommen.
    if I **DOCH** could I would immediately could
    ‘If only I could! I would come immediately.’
We can thus conclude that true optatives are unembeddable and apparent cases of embedded *if*-optatives can be explained either as some type of conditional (which I will come back to in chapter 6) or as an illusion, where two unconnected clauses appear to be connected.

The third concern that I raised above is that, of course, degree exclamatives have often been argued to be embeddable, which seems to entail that an analysis of optatives and polar exclamatives as expressive $EX$ utterances would fail to extend to such constructions. Alternatively, this observation may even be taken to challenge the idea that optatives are exclamative-like, as optatives are unembeddable whereas the most familiar type of exclamatives seems to be embeddable. In what follows, I briefly show that degree exclamatives are not always embeddable and that those cases that are embeddable are the ones that have the syntax of embedded clauses to begin with. It is thus desirable to assume that such ‘embedded degree exclamatives’ are actually simply ‘embedded wh-clauses’ (without exclamative properties) that contain specialized lexical items, which carry exclamative implicatures. Such a view is developed by Castroviejo Miró (2008) and Sæbø (2010) and I refer the readers to these authors for details.

German has a comparatively broad paradigm of degree exclamatives, illustrated in (301). Examples (301a+b) are unambiguously exclamatives, as they contain vacuous *nicht* ‘not’, which is a hallmark of German *wh*-exclamatives and cannot occur in questions (see Roguska 2007 for discussion). Examples (301c+d) are unambiguously exclamatives when they carry an exclamative accent (on the subject or on the gradable predicate) and contain one of the exclamative-specific particles *aber* (literally ‘but’) and *vielleicht* (literally ‘maybe’), cf. Rosengren (1992).

(301) a. Wen *der nicht alles* kennt! \[wh V_{fin} \text{ exclamative}\]
    who he not all knows
    ‘How many people he knows!’ (*lit.* ‘Who all he doesn’t know!’)

b. Wen kennt *der nicht alles!* \[wh V2 \text{ exclamative}\]
    who knows he not all
    ‘How many people he knows!’ (*lit.* ‘Who all doesn’t he know!’)
What we observe is that only a subtype of exclamatives can be embedded, namely the one that have the structure of prototypical embedded clauses, (302a). Other types of degree exclamatives can not be embedded, as shown in (302b-d). This corroborates the idea that possibly true exclamations cannot be embedded, as proposed by Rifkin (2000), who also seeks to unify optatives and exclamatives (see also Quirk et al. 1985).

Unsurprisingly, we find a parallel behavior with polar exclamatives. On the one hand, dass-polar exclamatives, which have the shape of an embedded clause, can apparently be embedded, (303a), whereas V1-polar exclamatives are unembeddable, (303b). Again, I argue that apparent embedded exclamatives are not exclamative to begin with and rather...
achieve an exclamative effect (if they do) by virtue of lexical items that they contain and/or by virtue of their similarity to corresponding exclamatives.

(303) a. (Hans ist überrascht,) dass du doch tatsächlich an mich gedacht hast. Hans is surprised that you doch indeed at me thought have ‘Hans is surprised that you really remembered me.’

b. (*Hans ist überrascht,) hast du doch tatsächlich an mich gedacht. Hans is surprised have you doch indeed at me thought ‘Hans is surprised that you really remembered me.’

I conclude that true exclamations are unembeddable, which supports a view that assumes an expressive $EX$ operator (historically preceded by Gutiérrez Rexach’s 1996 $EXC$ and by Kyriakaki’s 2007, 2008, 2009 exclamative wish operator) in all types of exclamations.

4.1.6.3 A brief review of other markers of expressive meaning

Let us briefly review other markers of expressive meaning, according to Potts (2005, 2007) (see also McCready 2009). First of all, Potts proposes that it is impossible to state what expressive elements actually mean (his notion of descriptive ineffability). Optatives do seem to comply with this observation. In the same way in which we are hardpressed to say what $damn$ means (e.g. (304b) does not satisfactorily paraphrase (304a)), we are hardpressed to say what optative utterances mean. We know that they express a wish or at least a positive evaluation, but neither (305b) nor (305c) seems to satisfactorily paraphrase (305a), indicating that this observation alone does not equip us with an understanding of what (305a) means.

(304) a. That $damn$ John is now coming to my birthday party.

b. I dislike John and he is now coming to my birthday party.

(305) a. If only he were handsome!

b. I wish he were handsome.

c. It would be good if he were handsome.
Potts also argues that expressive elements have the property of *immediacy*, meaning that uttering them alone is sufficient to fulfill one’s communicative goal. Immediacy clearly holds in exclamations, given that uttering an optative and polar exclamative directly expresses desire and surprise respectively. It is not necessary for the hearer to respond in any way, which is necessary in response to assertive utterances.

Finally, Potts observes that expressive meaning is strengthened under repetition (*repeatability*). While this is not an exclusive property of expressives (Kai von Fintel, p.c.), shown in (306), optatives do exhibit this property, consistent with a view that treats them as expressive utterances.

(306)  A: He doesn’t know anything about semantics. 
       B: But he does! He does! He does!

Example (307) shows naturally occurring optatives from forum discussions and reviews on *Yelp* (which I anonymized by changing names and omitting the URLs). In each case, repetition of an entire utterance is possible, strengthening the expression of desire.

(307)  a. A: I know you, you’re Bob, right?  —  B: If only I were, if only I were.  
       b. If only they knew ... Christ, if only they knew ...  
       c. If you only knew, if you only knew.  

Another example from a 1913 novel is given in (308).

(308)  “If he only knew—if he only knew!” he muttered to himself. “He must know soon, or there won't be half the pleasure in it for me.” 

(Frank Williams. 1913. *The Wilderness Trail*. New York: Grosset and Dunlap.)

I take these facts to corroborate the proposal that optatives (and polar exclamatives) are expressive utterances, which follows if the *EX* operator has the function of shifting its argument from the level of descriptive at-issue content to the level of expressive content. In the following sections, I discuss the semantic content of *EX*. 

4.1.7 The EX operator is scalar

I argue that another core property of EX is its scalar nature, i.e. EX conveys that the denoted proposition has a particular rank on a relevant scale, cf. (309). An alternative view would maintain that the optative operator expresses (absolute) positive evaluation.

(309) **Sub-Claim 5:**
When uttering an utterance of EX(φ), in order to express an emotion ε, the emotion ε is connected to a scale (in the case of optatives: a preference scale).

In the present case, evidence for scalarity can be derived from scalar implicatures, as discussed by Zanuttini & Portner (2003). Zanuttini & Portner (2003) argue that degree exclamatives convey information that is noteworthy or surprising; in their analysis, this follows from the assumption that the denoted proposition is at a scalar extreme. Evidence for such a scalar implicature (and thus for scalarity) can be gained from examples such as (310). Following a declarative statement, an implied extreme status of the expressed proposition can be canceled, (310b). This is not possible after a wh-exclamative, (310a).

(310)a. ?? How very cute he is! – though he’s not extremely cute.
   b. He’s quite cute! – though not extremely cute.
   (Zanuttini & Portner 2003:47)

This diagnostic has been applied to Icelandic degree exclamatives in Jónsson (2010), as given in (311a).

(311)a. Rosalega er hann fljótur! # það kemur þó ekki á óvart.
    extremely is he quick that comes yet not in surprise
    ‘How extremely quick he is! That is not surprising, though.’
   b. Hann er rosalega fljótur! það kemur þó ekki á óvart.
    he is extremely quick that comes yet not in surprise
    ‘He is extremely quick. That is not surprising, though.’
   (Jónsson 2010)
Brandner (2010) applied it to German V1 degree exclamatives, (312a).

(312)a. Spricht der ein Deutsch! – # Aber so gut ist es auch wieder nicht. 

speaks he a German but so good is it also again not
‘What a German he speaks – but it is not really good’

b. Er spricht ein gutes Deutsch! – Aber so gut ist es auch wieder nicht.

he speaks a good German but so good is it also again not
‘He speaks a good German – but it is not really good’

(Brandner 2010:94)

We can now apply this diagnostic to optatives. First we can show that optatives have a goodness implicature (or entailment), which is why (313a) is illformed.


oh had I doch no tip given but that were bad
‘If only I hadn’t left a tip. – That would be bad though.’


I wish I had no tip given but that were bad
‘I wish I hadn’t left a tip. – That would be bad though.’

Crucial further evidence for scalarity can be gained from (314). The contrast between the illformed (314a) and the wellformed (314b) can be explained in terms of the assumption (similar to Zanuttini & Portner’s) that the denoted proposition must be relatively high on the speaker’s preference scale. If the speaker is merely content (but not necessarily satisfied) if the denoted proposition holds, it is possible to follow up with a wish for more, as given in (314b). This is not always possible in the case of the optative in (314a), indicating that the denoted proposition must (at the point of utterance) be desirable to a substantial extent.

73 Changing aber das wäre schlecht ‘but that would be bad’ to aber das wäre schlecht gewesen ‘but that would have been bad’ does not alter the reported judgments.
(314)a. Ach, wenn ich doch den Mindestlohn bezahlt bekommen würde!
oh if I doch the minimal.wage paid get would
‘Oh if only I received the minimal wage.’

– # Aber ich will natürlich eigentlich ein tolles Einkommen.
   but I want naturally actually a great income
   ‘But naturally I actually want a great income.’

b. Ich wäre zufrieden, wenn ich den Mindestlohn bezahlt bekommen würde.
I were content if I the minimal.wage paid get would
‘I would be content if I received the minimal wage.’

– Aber ich will natürlich eigentlich ein tolles Einkommen.
   but I want naturally actually a great income
   ‘But naturally I actually want a great income.’

However, we can show that the absolute desirability of the expressed proposition that we observe in (314a) is an implicature, as opposed to an entailment, of optative utterances. If we add wenigstens ‘at least’ (see chapter 6.3), this implicature disappears, as shown in example (315).

(315) Ach, wenn ich doch wenigstens den Mindestlohn bezahlt bekommen würde!
oh if I doch at.least the minimal.wage paid get would
‘Oh if only I received at least the minimal wage.’

– Aber ich will natürlich eigentlich ein tolles Einkommen.
   but I want naturally actually a great income
   ‘But naturally I actually want a great income.’

Similarly, we can observe that optatives do not always express a wish for the best possible scenario (i.e. the most desirable situation). This is shown in (316). Imagine I have broken my right arm, and I am right-handed. Clearly, in the most desirable situations I haven’t broken any arm; yet (316) is possible\textsuperscript{74}. In the same situation, scalar statements like (317), which involve a comparison of situations, are possible, whereas absolute statements like (318), which do not involve such a comparison, are odd. This follows if optatives express that the denoted proposition is sufficiently desirable to be

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\textsuperscript{74} Thanks to David Pesetsky, who suggested an example of this type to me.
satisfactory in some relevant sense (accounting for (313a) and (314a)), but it is not necessarily the best possible case (accounting for (315) and (316))\textsuperscript{75}.

(316) Context: I broke my right arm and I’m right-handed
     Oh, if only I had broken my left arm!

(317) a. It would be \textbf{preferable} [if I had broken my left arm].
     b. It would be \textbf{better} [if I had broken my left arm].
     c. I would \textbf{prefer} it [if I had broken my left arm].

(318) a.\# It would be \textbf{great/good/nice/ideal} [if I had broken my left arm].
     b.\# It would be \textbf{wonderful} [if I had broken my left arm].
     c.\# It would be a \textbf{good thing} [if I had broken my left arm].

We can thus conclude that optatives involve scalarity just as much as other exclamatives do, motivating a view under which exclamations always involve some scale or other. I implement this by assuming that \textit{EX} takes a scalar argument and quantifies over scalar alternatives.

To finish up this section, we can point out (in view of a uniform \textit{EX}-based analysis of optatives and polar exclamatives) that the scalar diagnostic also applies to polar exclamatives. Again, canceling the \textit{surprise effect} in (319a) is not possible, due to the inherent scalarity of the expression, whereas this is possible in (319b).

\textsuperscript{75} A natural question that arises here is whether degree exclamatives sometimes have a meaning that does not involve an \textit{extreme} degree. Possibly the contrast between (i) and (ii) intuitively instantiates a possible distinction between slight surprise (or even simple doubt), in (i), and extreme surprise, in (ii).

\begin{enumerate}
\item Was du \textit{nicht} sagst!
     what you \textit{not} say
     ‘What you are saying!’ \Rightarrow ‘I’m somewhat intrigued by what you’re saying!’

\item Was du \textit{für} Geschichten \textit{kennst}!
     what you \textit{for} stories \textit{knows}
     ‘What fascinating stories you know!’ \Rightarrow ‘I’m surprised at all the stories that you know!’
\end{enumerate}
(319)a. Dass der heute gar keinen Kater hat!
that he today absolutely no hangover has
‘[It amazes me] that he doesn’t have a hangover at all today!’

— … # was natürlich nicht überraschend ist.
what naturally not surprising is
‘which of course isn’t surprising.’

b. Der hat heute gar keinen Kater!
he has today absolutely no hangover
‘He doesn’t have a hangover at all today!’

— … was natürlich nicht überraschend ist.
what naturally not surprising is
‘which of course isn’t surprising.’

These data are thus consistent with a view under which both optatives and polar exclamatives contain $EX$, an inherently scalar element.

### 4.1.8 On the role of interjections and other prototypical elements

As Scholz (1991) observes, optatives prototypically contain particles, such as $doch$, $nur$ ‘only’ and $wenigstens$ ‘at least’ in (320a). Alternatively, they can contain interjections, such as $ach$ ‘oh’ or $oh$ ‘oh’, as in (320b). Notably, they can also be licensed marginally by verum focus, as in (320c) (Rosengren 1993). Optatives without any of these prototypical markers are generally deviant, (320d), but it is possible to find exclamations that seem acceptable without any of these prototypical features and express a positive evaluation, as in (321), indicating that none of these features is absolutely obligatory.

(320)a. Wäre ich $doch$ / $nur$ / $wenigstens$ REICH! typical particle
were I doch only at.least rich

b. Ach, wäre ich REICH! typical interjection
oh were I rich

c. WÄRE ich reich! typical intonation
were I rich

d.# Wäre ich REICH! no marking whatsoever
were I rich

‘If only I were rich!’

168
(321)a. Wenn ich deine Statur hätte!
   if I your build had
   ‘[Oh!] If [only] I had your build!’
   (adapted from Evans 2007, most natural stress marking is indicated by me)

b. Rico schaute die Blumen an und dachte:
   ‘Rico looked at the flowers and thought:’
   “Wenn Stineli diese sehen könnte!”
   if Stineli these see could
   ‘If Stineli could see these!’
   und stand lange unbeweglich am Zaun.
   ‘and stood at the fence for a long time without moving.’
   (Johanna Spyri (1878): Heimatlos. Discussed in Grosz 2011)

I will discuss the role of particles in exclamations in chapter 6. However, in the present section it is worth briefly addressing the role of interjections in optatives. I propose that these interjections do not realize EX (as one might conjecture), but rather combine with EX to strengthen or refine the emotion that is expressed, (322).

(322) Sub-Claim 6:

In an utterance of EX(ϕ), uttered to express an emotion ε, EX combines with interjections (oh!, man!, …) to further refine the expression of ε.

It is a familiar feature of English V1-exclamatives that they almost obligatorily require an interjection, which can be drawn from a set including Boy, Wow, My, and Gee (Elliot 1971, McCawley 1973).

(323) a. Boy, can you make delicious coffee!

   b. My, is this cookie delicious!
   (McCawley 1973:371)

Similarly, Scholz (1991) observes that in (German) optatives, interjections are a prototypical feature, drawn from a set including Ach ‘oh’, Herrje ‘criminy’, Oh Gott ‘oh god’ and Mein Gott ‘my god’.
(324) a. Ach wäre er doch gekommen!
oh were he doch come
‘Oh, if only he had come!’
(Scholz 1991:116)
b. Mein Gott, hätten wir doch mehr solche Kunden wie die gerade!
my god had we doch more such customers like those just.now
‘My God, if only we had more customers like the ones that were just here!’
(Scholz 1991:114)

This gives rise to an intuitive hypothesis that such interjections are overt realizations of
EX. However, there is a good reason to reject this hypothesis.

There are two plausible renderings of such a hypothesis. One possibility is that
interjections are simply realizations of EX; under such a view, any EX utterance should
be compatible indiscriminately with any interjection that is ever found in an EX utterance.
The other possibility is that interjections realize a particular EX + Scale combination. For
instance, one might conjecture that man or boy realize an EX operator that combines with
an inverse likelihood scale (as in polar exclamatives and degree exclamatives), whereas
oh realizes an EX operator that combines with a preference scale.

The second hypothesis (that interjections lexicalize particular EX + Scale
combinations) is easily rejected. This would predict a complementary distribution of
interjections, in that some should only occur in optatives and others should only occur in
polar exclamatives or degree exclamatives. We do not find such a complementary
distribution. In German, mein Gott ‘my God’ can occur with all three utterance types,
shown in (325).

(325) a. optative
Mein Gott, hätten wir doch mehr solche Kunden wie die gerade!
‘My God, had we only more customers like the ones that were just here!’
(Scholz 1991:114)
b. polar exclamative
Mein Gott. daß der aber auch so furchtbar schimpfen kann.
‘My God, [it’s shocking] that he can swear this viciously!’
(Scholz 1991:18)
Similarly, the more general interjection ach ‘oh’ can occur with all three utterance types as well, as shown in (326).

(326)  

a. **optative**

   Ach hätte er das doch nur gemacht!
   ‘Oh if only he had done this!’
   (Scholz 1991:115)

b. **polar exclamative**

   Ach, daß der Mensch so häufig irrt und nie recht weiß, was kommen wird!
   ‘Oh, [it’s shocking] that humans are wrong so often and never know what’s coming!’
   (Wilhelm Busch. 1904. Dunkle Zukunft.)

c. **degree exclamative**

   Ach, ist der aber süß.
   ‘Oh is he ever sweet!’
   (naturally occurring example from the internet)

These examples show that there cannot be a one-to-one relationship between the type of exclamation and the choice of interjection. This leaves us to consider the alternative option, that interjections lexicalize \textit{EX} itself indiscriminately.

I argue that this cannot be quite right either, as different interjections bias different types of exclamations. Specifically, based on an informal corpus search for English, it can be conjectured that \textit{oh} biases an optative use (as opposed to a degree exclamative use), whereas \textit{boy} biases a degree exclamative use (as opposed to an optative use).

The reason I test this for English, rather than for German, is that English is more rigid in the different strings that it allows for, making search results more easy to mine (e.g. searching for the string \textit{if only} in English almost always yields optatives, whereas no corresponding string exists in German).
social reviewing website). I looked through all of the results, verified that the utterances were grammatical and eliminated duplicates. The search strings that I used were *INTERJECTION if only* (e.g. “oh if only”) and *INTERJECTION would I* (e.g. “boy would I”) – these strings were chosen to narrow down the results to a manageable size. Four modified examples of possible hits are given in (327) and (328).

(327) a. Oh if only I could give zero stars. \hspace{1cm} \textit{optative}
    b. Boy if only I could give zero stars.

(328) a. Oh would I love to take all my friends here. \hspace{1cm} \textit{degree exclamative}
    b. Boy would I love to take all my friends here.

The table in (329) summarizes the number of entries for a selection of 9 interjections that one may expect to find in exclamations. What is obvious is that degree exclamatives with *would I* are comparatively rare, which means the total number of hits is much lower. (I picked *would I* as the search string, as this is something that one may expect to see in reviews). What is clear from table (329) is that certain interjections (of which I would like to focus on *oh*) are more frequent with *if only* exclamations (i.e. optatives) and others (specifically *boy*) are more frequent with *would I* exclamations (i.e. degree exclamatives). This indicates that different interjections do not indiscriminately express an EX operator.

<table>
<thead>
<tr>
<th></th>
<th>INTJ if only</th>
<th>INTJ would I</th>
</tr>
</thead>
<tbody>
<tr>
<td>oh</td>
<td>41.1% (244)</td>
<td>4.9% (6)</td>
</tr>
<tr>
<td>ah</td>
<td>13.8% (82)</td>
<td>&lt;0.5% (0)</td>
</tr>
<tr>
<td>man</td>
<td>13.1% (78)</td>
<td>27.9% (34)</td>
</tr>
<tr>
<td>boy</td>
<td>2.7% (16)</td>
<td>\textbf{49.2% (60)}</td>
</tr>
<tr>
<td>wow</td>
<td>11.1% (66)</td>
<td>7.4% (9)</td>
</tr>
<tr>
<td>damn</td>
<td>7.9% (47)</td>
<td>4.1% (5)</td>
</tr>
<tr>
<td>god</td>
<td>5.1% (30)</td>
<td>4.9% (6)</td>
</tr>
<tr>
<td>gosh</td>
<td>3.4% (20)</td>
<td>0.8% (1)</td>
</tr>
<tr>
<td>my</td>
<td>1.9% (11)</td>
<td>0.8% (1)</td>
</tr>
<tr>
<td>\textit{total}</td>
<td>100% (594)</td>
<td>100% (122)</td>
</tr>
</tbody>
</table>
The patterns that I observed in my corpus study are summarized in (330) and (331), where superscripted ‘α’ marks possible but dispreferred.

(330)  
a. Oh(,) if only I could give zero stars.
   b. “Boy(,) if only I could give zero stars.

(331)  
a. “Oh(,) would I love to take all my friends here.
   d. Boy(,) would I love to take all my friends here.

A pilot study on a different corpus (here: a google search restricted to www.nytimes.com) confirms these patterns.

<table>
<thead>
<tr>
<th></th>
<th>INTJ if only</th>
<th>INTJ would I</th>
</tr>
</thead>
<tbody>
<tr>
<td>oh</td>
<td>88.8% (120)</td>
<td>&lt; 0.5% (0)</td>
</tr>
<tr>
<td>boy</td>
<td>11.1% (15)</td>
<td>100% (29)</td>
</tr>
<tr>
<td>total</td>
<td>100% (135)</td>
<td>100% (29)</td>
</tr>
</tbody>
</table>

Informally, these preference patterns seem to point in the direction that oh is typically associated with something bouletic, whereas boy is typically associated with an indication of unlikelihood. A formalization of the semantics of interjections is beyond the scope of this dissertation, but I conjecture that in the spirit of McCready (2009), they can be analyzed as expressive elements in their own right. In $EX$ utterances, the main effects of using different interjections are then, first, to block readings that are incompatible (or dispreferred) with the interjection that is used and, second, to strengthen the emotive / evaluative attitude expressed by the exclamation.

4.1.9 Formal matters: What is in $EX$ and what isn’t.

In the preceding sections, I have argued for the existence of an $EX$ operator in exclamations, subsuming optatives and polar exclamatives (and possibly degree exclamatives), cf. sections 4.1.3 and 4.1.4. I have argued that $EX$ is emotive (4.1.5),
expressive (4.1.6) and scalar (4.1.7). To capture its meaning, I have proposed the semantics in (333) with the auxiliary definition in (334).

(333) **Lexical entry for EX (final)**

For any scale $S$ and proposition $p$, interpreted in relation to a context $c$ and assignment function $g$,

an utterance $\text{EX}(S)(p)$ is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

“EX expresses an emotion that captures the fact that $p$ is higher on a (speaker-related) scale $S$ than all contextually relevant alternatives $q$ below a contextual threshold.”

*where* THRESHOLD($c$) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale $S$.

(334) **Definition of scale (final)**

a. A scale $S$ is defined as a set of ordered pairs of worlds ($S \subseteq W \times W$), which are ordered by an ordering relation $R$, such that for every pair of worlds $<w_7,w_3>$ in $S$, the relation $R(<w_7,w_3>)$ holds.

b. For any scale $S$ and corresponding ordering relation $R$, I use $w_7 >_S w_3$ to mean ‘$w_7$ is strictly higher than $w_3$ on $S$’, i.e. $R(<w_7,w_3>) \land \neg R(<w_3,w_7>)$.

c. For any proposition $p$ and $q$, $p >_S q$ iff $\forall w_3 \in q \exists w_7 \in p$ such that $w_7 >_S w_3$, and it is not the case that $\forall w_7 \in p \exists w_3 \in q$ such that $w_3 >_S w_7$.

(adapted from Villalta 2007:106, using concepts from Klinedinst 2005)

Two illustrations are given in (336) and (337), different readings of the ambiguous (335).

(335) Mein Gott, **dass** der Otto **verschlafen** hat! *that-exclamation*

lit. My God, that he didn’t oversleep!

(336) **Optative reading**

a. LF: $[[\text{EX }_\text{speaker-preferences}] \text{ (dass) der Otto nicht verschlafen hat!}]$ that he Otto not overslept has

b. an utterance of (336a) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_{\text{speaker-preferences}} q$ $\rightarrow \text{Otto-didn’t-oversleep >}_{\text{speaker-preferences}} q]$
c. *in words:*

The speaker expresses an attitude that at least some world in which Otto didn’t oversleep is more preferable than all of the worlds compatible with relevant alternative propositions. ⇒ *conveys:* ‘I hope Otto didn’t oversleep!’

(337) **polar exclamative reading**

a. **LF:**  
[[EX \text{S} \text{-unlikelihood}]( \text{dass} \text{ der } \text{ Otto nicht } \text{ verschlafen hat}!) \text{ that } \text{ he } \text{ Otto not } \text{ overslept } \text{ has}]

b. an utterance of (337a) is felicitous iff ∀q[\text{THRESHOLD(c)} >_{\text{unlikelihood}} q \rightarrow \text{Otto-didn’t-oversleep} >_{\text{unlikelihood}} q]

c. *in words:*

The speaker expresses an attitude that at least some world in which Otto didn’t oversleep are less likely than all of the worlds compatible with relevant alternative propositions. ⇒ *conveys:* ‘I’m surprised Otto didn’t oversleep!’

What (336b+c) and (337b+c) do not address is the apparent precondition that (336a) is non-factive whereas (337a) is factive. I address this matter in chapter 5.

The present analysis implements the intuitions that I report in (338b+c). \text{EX} always conveys that the modified proposition is sufficiently high on a salient scale to trigger an emotion (of desire or surprise, respectively), and the scale is provided by the context.

(338) a. *Mensch! Dass der Otto heute nicht verschlafen hat!*

man that he Otto today not overslept has  
*lit.* ‘Man! That Otto didn’t oversleep today!’

b. **optative reading:**

\text{LF: } [\text{EX}_{\text{speaker-preference}} \text{ [that Otto didn’t oversleep today]}]

\text{interpretation:}  
worlds in which Otto didn’t oversleep are higher than a salient threshold \( \xi \) on the speaker’s preference scale, where \( \xi \) marks the boundary between intolerable worlds (below \( \xi \)) and tolerable worlds (above \( \xi \)).

c. **polar exclamative reading:**

\text{LF: } [\text{EX}_{\text{speaker-unlikelihood}} \text{ [that Otto didn’t oversleep today]}]

\text{interpretation:}  
worlds in which Otto didn’t oversleep are higher than a salient threshold \( \xi \) on the speaker’s inverse likelihood scale, where \( \xi \) marks the line between unsurprising worlds (below \( \xi \)) and surprising worlds (above \( \xi \)).
Focusing on optatives, two aspects of this analysis need to be motivated: First of all, is it necessary to make reference to alternative propositions (Villalta 2000, 2007) rather than simply to the denoted proposition and its polar opposite (Heim 1992, applied to optatives by Kyriakaki 2007, 2008, 2009)? Secondly, if optatives compare the denoted proposition to alternatives, which alternatives is it compared to (i.e. all of them, some of them, etc.)?

Consider Heim’s (1992) analysis of *want* (based on Villalta’s 2007 non-dynamic rendering), in (339), contrasting it with Villalta’s (2007) analysis, in (340)77.

(339) **desire as polar comparison of a proposition and its opposite (cf. Heim 1992)**

a. \(|\text{want}|| (p)(a)(w) = 1 \text{ iff } \forall w' \in \text{Dox}_a(w): \text{Sim}_{w'}(p) >_{\text{DES}_a, w} \text{Sim}_{w'}(\neg p)\)

   where

   b. For any proposition \(p\), any similarity relation \(\leq\) and any world \(w\):
      \(\text{Sim}_w(p) = \{w': p(w') = 1 \& \forall w'': p(w'') = 1 \rightarrow w' \leq_w w''\}\)

   c. For any worlds \(w_1, w_2\) and for any ordering relation \(g \in \text{D}_{<\text{St}, >}\),
      \(w_1 >_g w_2 \text{ iff } \{p: p \in g \& p(w_1) = 1\} \subseteq \{q: q \in g \& q(w_2) = 1\}\)

   d. For any worlds \(w \in W\) and sets of worlds \(X \subseteq W, Y \subseteq W\),
      \(X >_g Y \text{ iff } \forall w' [w' \in X \rightarrow \forall w'' [w'' \in Y \rightarrow w' >_g w'']\]\).

   e. \(\text{Dox}_a(w)\) contains all the worlds that are compatible with what a believes in the world \(w\) to be true (i.e. the worlds that are candidates for being the actual world, according to a’s beliefs in \(w\)).

   d. **In words:** “All of the \(p\)-worlds that are closest to the actual world according to the speaker’s beliefs are more preferable to the speaker than all of the closest \(\neg p\)-worlds.”

   (based on Villalta’s 2007 non-dynamic rendering of Heim’s 1992 definition)

77 Heim (1992) develops an intuition from Stalnaker (1984), assuming a conditional semantics in the tradition of Lewis (1973) and Stalnaker (1968).

78 For a different view on how to model preferences, see Condoravdi & Lauer’s (2011) *preference structures.*
(340) desire as a comparison of a proposition and salient alternatives (cf. Villalta 2007)

a. \( ||\text{want}_x||^\alpha(p)(a)(w) = 1 \) iff \( \forall q: q \neq p \& q \in g(C): p >_{\text{DES}_a,w} q \)

where:

b. \( C \) is a contextually determined set of propositions (plausibly identical to the set of contextually salient focus alternatives, Rooth 1985, 1996).

c. For any worlds \( w, w_7 \) and \( w_3, w_7 >_{\text{DES}_a,w} w_3 \) iff \( w_7 \) is more desirable to \( \alpha \) in \( w \) than \( w_3 \).

d. For any proposition \( p \) and \( q, p >_{\text{DES}_a,w} q \) iff \( \forall w_7 \in q \exists w_7 \in p \) such that \( w_7 >_{\alpha,w} w_3 \), and it is not the case that \( \forall w_7 \in p \exists w_7 \in q \) such that \( w_7 >_{\alpha,w} w_3 \).

e. **In words:** “The modified proposition \( p \) is more preferable to the speaker than all contextually salient alternatives.”

(adapted from Villalta 2007:106)

In words, (339) states that \( x \) wants \( p \) is true if and only if, all else being equal, \( p \)-worlds are more desirable for \( x \) than \( \neg p \)-worlds. This accounts for the fact that we can want something that’s not optimal, as (341) can be a true statement in a context like (342).

(341) I want to teach Tuesdays and Thursdays next semester.

(Heim 1992, Villalta 2007:96)

(342) a contextual ranking of desires (from Heim 1992, discussed in Villalta 2007)

a. First choice: I don’t teach at all.


c. Third choice: I teach on other days.

In contrast, (340) states that \( x \) wants \( p \) is true if and only if there is some \( p \)-world that is more desirable for \( x \) than all of the worlds compatible with each of the salient alternative propositions \( q \). Villalta proposes this modification in order to account for situations in which different alternatives differ in their likelihood but we still care about the best possible option. Consider the scenario in (343a), schematically given in (343b).
(343)  a. Sofia may bring a chocolate cake, apple pie or ice cream to Victoria’s picnic. It is extremely unlikely that Sofia brings chocolate cake, whereas it is most likely that she brings ice cream and somewhat less likely that she brings apple pie. Victoria prefers the chocolate cake to the apple pie by far, and she hates ice cream.

b. preferences beliefs
most desirable chocolate cake most unlikely / least likely

least desirable apple pie ice cream most likely / least unlikely

(adapted from Villalta 2007:102+103)

Villalta (2007) argues that the statement in (344) is judged false in a context like (343) even though Heim (1992) predicts (344) to be true, as follows. If we compare the apple-pie worlds that are closest to the actual world to the ¬apple-pie worlds that are closest to the actual world, all of the closest ¬apple-pie worlds are ice-cream worlds (given that chocolate-cake worlds are too remote). A simple comparison between closest apple-pie worlds and closest ¬apple-pie worlds should thus render (344) true. If, however, we compare apple-pie worlds to salient alternatives, we can contextually restrict alternatives to include chocolate-cake worlds. Conversely, in (341), the worlds in which I don’t teach at all would already be excluded from the set of contextually relevant alternatives.

(344)  # Victoria wishes Sofia would bring an apple pie.

(adapted from Villalta 2007:102+103)

Under Villalta’s view, comparison between p-worlds and ¬p-worlds is then a subcase of the more general comparison between p-worlds and contextually salient q-worlds. Notably, Villalta remarks that in the context in (343a+b), if Sofia ends up bringing an apple pie, (345) seems to be a true statement. Under the assumption of Heim (1992) that want, wish and be glad have the same core meaning, this possibility clashes with generalized universal quantification over salient alternative propositions and thus prompts Villalta (2007) to relativize glad to the entry in (346).
(345) Victoria is glad that Sofia brought an apple pie.

(Villalta 2007:127)

(346) \(|\text{be glad}|^g(p)(a)(w) = 1 \text{ iff } \exists q: q \neq p \land q \in g(C): p >_{\text{DESa},w} q\)

“\(p\) is more desirable to \(a\) in \(w\) than some contextually relevant alternatives \(q\)”

(Villalta 2007:128, paraphrase mine)

The question is what the correct meaning is for the EX operator. First of all, does the EX operator simply compare the denoted proposition and its polar opposite or does it compare the denoted proposition to salient alternatives?

Looking at Villalta’s picnic scenario, what we observe is that the choice of particle (i.e. nur ‘only’, doch, wenigstens ‘at least’ in German) influences the acceptability of an optative with respect to different alternatives. Consider first a wish for chocolate cake (after the fact), expressed in (347). While such a wish is felicitous with the particle doch, it is ill-formed in the relevant context if we use the particle wenigstens ‘at least’. This is due to the fact that doch simply marks a conflict, whereas wenigstens ‘at least’ makes a better alternative salient (see chapter 6 for a detailed discussion of these particles). The particle nur ‘only’ seems wellformed, but slightly more marked than doch.

(347) Jetzt kommt die mit Vanilleeis daher! …

now comes she with vanilla.ice.cream here

‘Now she arrives with Vanilla ice cream!’

Ach, wenn sie doch / nur / wenigstens einen Schokokuchen gebracht hätte!

oh if she doch only at.least an chocolate.cake brought had

‘If only she had brought an chocolate cake!’

Now contrast (347) with (348), which expresses a wish for apple cake. Here, wenigstens ‘at least’ becomes the most natural, whereas doch seems slightly more marked, indicating that doch in the absence of nur ‘only’ and wenigstens ‘at least’ may by default bias a reading where the denoted proposition is the optimal option as compared to contextual alternatives. (These judgments are very subtle due to the flexible nature of contextual
alternatives and other contextual information; only the illformedness of *wenigstens* ‘at least’ in (347) is a categorical, strong judgment.)

(348) Jetzt kommt die mit Vanilleeis daher! …
now comes she with vanilla ice cream here
‘Now she arrives with Vanilla ice cream!’

Ach, wenn sie *dorch / nur / wenigstens* einen Apfelkuchen gebracht hätte!
oh if she *dorch* only at.least an apple cake brought had
‘If only she had brought an apple cake!’

The contrast between (347) and (348), coupled with the assumption that the source of desirability (i.e. *EX*) is uniform across different optatives, suggests that we are indeed comparing alternatives, and not just the expressed proposition to its negation; we find some cases, like (348), where the optative marks the denoted proposition as better than some alternative, and other cases, like (347), where the optative marks the denoted proposition as better than all alternatives. What is crucial for distinguishing between Heim (1992) and Villalta (2007) is the issue that wishing for something other than the best should sometimes be deviant, as indicated for *doch* in (348). As the judgments are subtle, it is worth considering another example. Moving from counterfactual cases to non-counterfactual cases, we can establish a contrast similar to (347) and (348). In the absence of any particle, the default interpretation seems to bias universal quantification over the salient alternatives, as shown in (349), whereas *wenigstens* ‘at least’ enforces existential quantification over salient alternatives, as shown in (350).

(349) Oh, dass Sofia dieses Mal *Schokokuchen / ??Apfelkuchen* mitbringt!
oh that Sofia this time chocolate cake apple cake brings
‘Oh that Sofia brings chocolate cake / ??apple pie this time!’

(350) Oh, dass Sofia dieses Mal *wenigstens #Schokokuchen / Apfelkuchen* mitbringt!
oh that Sofia this time *at.least* chocolate cake apple cake brings
‘Oh that Sofia at least brings #chocolate cake / apple pie this time!’
What the contrast in (349) suggests is that in the default case an optative requires that the denoted proposition is more preferable than all alternatives (as in the case of the chocolate case, but not in the case of the apple pie). It doesn’t simply compare the expressed proposition to its polar opposite all else being equal. At the same time, the meaning of the EX operator needs to be flexible in the sense that (350) becomes possible, where the speaker is explicitly settling for a less than optimal option, indicated by the use of wenigstens ‘at least’.

Consider now the two options that directly follow from Villalta (2007), in (351).

(351) For any scale $S$ and proposition $p$, interpreted in relation to a context $c$ and assignment function $g$,

a. **universal EX analysis (cf. Villalta’s 2007 wish)**
   
an utterance $EX_c(S)(p)$ is felicitous iff $\forall q \left[ [q \neq p \& q \in g(C)] \rightarrow p >_S q \right]$

b. **existential EX analysis (cf. Villalta’s 2007 be glad)**
   
an utterance $EX_c(S)(p)$ is felicitous iff $\exists q \left[ [q \neq p \& q \in g(C)] \rightarrow p >_S q \right]$

The option in (351a) must be rejected straight away, given that we have seen cases like (350), where it is crucial that we are not quantifying over all alternatives. This leaves us with the question of whether (351b) is a viable option. This option does not seem to work either. If we take into account the fact that Sofia in Villalta’s context may forget / have forgotten to bring anything, there are four salient alternatives, given in (352) (flattening out the probabilities, which are irrelevant for this point). Assume (as indicated) that Sofia brought apple pie. If optatives always expressed existential quantification over alternatives, (353) should be a wellformed exclamation, contrary to fact. This is the case, as *(Sofia brought) nothing* would be a salient, contextually relevant alternative to *(Sofia brought) ice cream*, and *ice cream* would be preferable over *nothing.*
preferences

most desirable
- chocolate cake
- apple pie = what actually happened
- ice cream

least desirable
- nothing

(353)  # If only Sofia had brought ice cream!

To solve this issue, I propose that optatives (like other scalar expressions) are sensitive to a contextually given standard or threshold, (354), thus arriving at the final analysis of EX as presented above. On a preference scale, the threshold would mark the boundary between what is preferable and what is not. On an unlikelihood scale, the threshold would mark the boundary between what is unlikely and what is not.

(354) For any scale $S$ and proposition $p$, interpreted in relation to a context $c$ and assignment function $g$,

an utterance $EX(S)(p)$ is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

where $\text{THRESHOLD}(c)$ is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale $S$.

In any context, the threshold will now covary with whatever the speaker considers preferable (or possibly: tolerable) or unlikely (and thus surprising). To illustrate, in (355), the contextually given threshold would be set as in (356).

(355)  Jetzt kommt die mit Vanilleeis daher! …
        now comes she with vanilla.ice.cream here
    ‘Now she arrives with Vanilla ice cream!’

Ach, wenn sie doch / nur / #wenigstens einen Schokokuchen gebracht hätte!
oh if she doch only at.least an chocolate.cake brought had
    ‘If only she had brought an chocolate cake!’
Contrastively, in (357), the threshold would be lower, as in (358).

(357) Jetzt kommt die mit Vanilleis daher! …
now comes she with vanilla.ice.cream here
‘Now she arrives with Vanilla ice cream!’

Ach, wenn sie "doch / nur / wenigstens" einen Apfelkuchen gebracht hätte!
oh if she doch only at.least an apple.cake brought had
‘If only she had brought an apple cake!’

(358) preferences beliefs

most desirable chocolate cake most unlikely / least likely

threshold(c)

apple pie

least desirable ice cream most likely / least unlikely

Positing such a view, we can now ask how thresholds can be shifted in a context, and the following contrast gives rise to an interesting generalization. While thresholds can be shifted downwards (indicating willingness to compromise), shown in (359), they cannot be shifted upwards (raising our expectations), shown in (360).

(359) Jetzt kommt die mit Vanilleis daher! …
now comes she with vanilla.ice.cream here
‘Now she arrives with Vanilla ice cream!’

Ach, wenn sie "doch" einen Schokokuchen gebracht hätte!
oh if she doch an chocolate.cake brought had
‘If only she had brought an chocolate cake!’
Oder wenn sie *wenigstens* einen Apfelkuchen gebracht hätte!
or if she at.least an apple.cake brought had
‘Or at least if only she had brought an apple pie!’

(360) Jetzt kommt die mit Vanilleeis daher! …
now comes she with vanilla.ice.cream here
‘Now she arrives with Vanilla ice cream!’

Ach, wenn sie *wenigstens* einen Apfelkuchen gebracht hätte!
oh if she at.least an apple.cake brought had
‘If only she had at least brought an apple pie!’

# Oder wenn sie *doch* einen Schokokuchen gebracht hätte!
or if she doch an chocolate.cake brought had
‘Or if only she had brought an chocolate cake!’

Intuitively, assuming threshold-sensitivity also accounts for the surprise that is felt in polar exclamatives. If I am Victoria and I expect Sofia to bring ice cream, it seems possible to utter both (361a) and (361b) sincerely/felicitously, whereas (361c) seems insincere and thus infelicitous. This is because both (361a) and (361b) violate prior expectations, given that vanilla ice cream was the most likely. (361a) is compatible with the threshold for surprisingness to be as low as apple pie.

(361) a. *When Sofia arrives with chocolate cake:*

Mei, dass du dieses Mal Schokokuchen mitgebracht hast!
my that you this time chocolate.cake brought have
‘[I’m surprised] that you brought chocolate cake this time!’

b. *When Sofia arrives with apple cake:*

Mei, dass du dieses Mal Apfelkuchen mitgebracht hast!
my that you this time apple.cake brought have
‘[I’m surprised] that you brought apple cake this time!’

c. *When Sofia arrives with vanilla ice cream:*

# Mei, dass du dieses Mal Vanilleeis mitgebracht hast!
my that you this time vanilla.ice.cream brought have
‘[I’m surprised] that you brought vanilla ice cream this time!’
4.1.10 Two Types of Optatives: EX-Optatives and Adv-Optatives

So far, I argued that optatives contain an operator \( EX \), which is expressive and thus makes them unembeddable; see in particular section 4.1.6. In this section, I broaden my empirical scope and suggest that cross-linguistically there may be two types of utterances that express a desire without a word that means desire: Those that involve an \( EX \)-operator (which are correspondingly unembeddable), and those that bring about optativity by means of some idiosyncratic speech act adverbial. That speech act adverbial may by itself be expressive, but does not shift the propositional content of an utterance into the expressive domain. I will correspondingly call the first type of utterance \( EX \)-Optative, and the second type of utterance Adv-Optative.

A language that seems to have both types of utterances is Spanish. Spanish allows for \( if \)-optatives as in (362b), but it also allows for \( ojalá \)-optatives, as in (362a). Notably, \( ojalá \)-optatives simply have the structure of a declarative matrix clause (and do not involve a complementizer \( si \) ‘if’).

(362)

\[ \text{Context: The witches at the witchcraft school are desperately waiting for their broomsticks and wands to arrive in the mail. Once again, neither has arrived.} \]

a. ¡Ojalá mi escoba estuviera aquí!
   OJALA my broom were here
   ‘If only my broom were here!’

b. ¡Si al menos mi escoba estuviera aquí!
   if at least my broom were here
   ‘If at least my broom were here!’

I propose that \( ojalá \)-optatives differ from \( if \)-optatives in that their overall type is not expressive, which makes them embeddable. They do not contain an \( EX \)-operator; in contrast, the desirability is encoded by virtue of \( ojalá \), which should be analyzed as a type of speech act adverb on a par with English hopefully. A sentence with hopefully is illustrated in (363a), and (363a) seems to be equivalent to (363b) and not to (363c) (which is a contradiction).
a. Hopefully, he will come back; maybe he won’t.


b. I/We hope that he will come back; maybe he won’t.

c. #He will come back; maybe he won’t.

As shown in (364), there is no constraint against embedding utterances with *hopefully*. Again, (364) expresses a hope on part of John and not a commitment of John’s to come back.

(364) John said that hopefully he would come back.

For Spanish, we thus expect that the *if*-optative (which purportedly contains *EX*) is unembeddable, whereas the *ojalá*-optative may be embeddable. This is indeed what we find, as given in (365) and (366). Example (365) shows that a quantifier can bind into an *ojalá*-optative from a superordinated matrix clause; similarly, (366) shows that *wh*-movement is possible from within an embedded *ojalá*-clause.

(365) Context: The witches at the witchcraft school are desperately waiting for their broomsticks and wands to arrive in the mail. Once again, neither has arrived.

   a. Cada bruja$_1$ dice que ojalá su$_1$ escoba estuviera aquí.
      each witch said that OJALA her broom were here
      ‘Each of the witches said that she wished her broom were here.’

   b.* Cada bruja$_1$ dice que si al menos su$_1$ escoba estuviera aquí.
      each witch said that if at least her broom were here
      ‘Each of the witches said that she wished (at least) her broom were here.’

(366)a. ¿Que dijo Juan que ojalá hubieras comprado?
      what says Juan that OJALA you.had bought
      ‘What does Juan say that he wishes you had bought?’

   b.* ¿Que dijo Juan que si al menos hubieras comprado?
      what says Juan that if at least you.had bought
      ‘What does Juan say that he wishes you had bought (at least)?’
Candidates for languages that have such *Adv-Optatives* are clearly languages that use elements that look like specialized speech act adverbs to express desirability; some obvious candidates are given in (367). (What is remarkable is the degree to which such adverbs seem to be loaned into other languages.)

(367) a. **Makari** o John na akusi tin Mary!  
**Greek**  
*MAKARI* the John subj listened the Mary.acc  
‘If only John had listened to Mary!’

b. **Magari** Maria avesse ascoltato Gianni!  
**Italian**  
*MAGARI* Maria had listened to Gianni  
‘If only John had listened to Mary!’

c. **Kashki / Kash / Ey-Kash** John beh Mary goosh mikard!  
**Farsi**  
*KASHKI* KASH EY-KASH John to Mary listened had  
‘If only John had listened to Mary!’

d. **Keşke** John Mary’i dinle-se-ydi  
**Turkish**  
*KESKE* John Mary.acc listen-cond-past  
‘If only John had listened to Mary!’

e. **Kaash** John-ne apnii maa-kii baat sun-ii ho-tii  
**Hindi**  
*KAAASH* John-erg self.f mother-gen.f talk.f hear-pfv.f be-cf.f  
‘If only John had listened to his mother!’

f. **Kaash** John Mary-ne joi hath to!  
**Kutchi Gujarati**  
*KAASH* John Mary-acc seen had then  
‘If only John had watched Mary!’

g. **Oxalá** fôsse!  
**European Portuguese**  
*OXALÁ* it.were  
‘If only it were so!’

h. **Tant de bo** jo pogués donar-los una resposta clara.  
**Catalan**  
*as.much of good I could give-them a answer clear* (DACCO79)  
‘If only I could give them a clear answer.’

As expected, some of these languages allow for *Adv-optatives* to be embedded. A first example is given in (368), showing that *kaash*-optatives in Hindi can be embedded.

Similarly, in Greek, *makari*-optatives can be embedded, though this is slightly marked (against the judgments in Kyriakaki 2007, who argues that *makari*-optatives can never be embedded; this variability may suggest inter-speaker variations with respect to whether *makari*-optatives also contain an *EX*-operator or not).

Interestingly, Turkish never allows for embedded *keşke*-optatives (Süleyman Ulutas, p.c.), and Italian speakers do not pattern on a par with Spanish speakers. While Spanish exhibits a split between embeddable *ojalá*-utterances and unembeddable *si*-utterances, such a split is absent in Italian (though one out of six speakers accepts (370b)).

To summarize, contrasts such as presented in (365) and (366) argue for a second type of optative construction, which is different from the *EX*-optatives that I focus on. I have argued that these other optatives may simply contain a speech act adverb, like English *hopefully*, and shown additional evidence in (368) and (369) that such *Adv*-optatives can be embedded. While I maintain that the adverb in *Adv*-optatives may have a similar core semantics to the *EX*-operator, it is crucial that such adverbs operate on the propositional level – in the cases in which *ojalá, kaash* and *makari* are embedded, the wish does not
seem to be a wish on part of the speaker, but rather a wish on part of the matrix subject. In this sense, such Adv-optatives have neither properties of expressives (which should project to the speaker) nor of exclamations (which I conjecture would be unembeddable). I will thus no longer be concerned with Adv-optatives in the following sections.

Before concluding my discussion of Adv-optatives, it is however useful to discuss one open question, namely the restrictions that can be observed with respect to possible embedding predicates. If we look at Greek, we instantly notice a restriction to verbs of saying; in (371), based on (369), we see that anafoni ‘exclaims’ can embed a makari utterance, whereas xeri ‘wishes’ or pistevi ‘thinks’ cannot do so. This indicates that Adv-optatives may have a special status after all.

(371) I Maria3 *anafoni / *xeri / *pistevi [oti makari o Kostas na tin3 akusi].
    Maria *exclaims *wishes *thinks that MAKARI Kostas subj to.her listened
    ‘Maria exclaims / wishes / thinks that hopefully Kostas had listened to her.’

Judgments in Spanish seem to be less strong than in Greek, but the overall tendency also seems to favor verbs of saying over different attitude predicates\(^80\).

(372) Cada bruja1 dice / ?piensa / ??insiste en / ??espera / ??desea / *quiere
each witch said ?thinks ??insists ??hopes ??wishes *wants
    que ojála su1 escoba estuviera aquí.
    que OJALA her broom were here
    ‘Each of the witches said that she wished her broom were here.’

A similar preference has been claimed to hold for embedded imperatives in Crnič & Trinh (2009), who argue that imperatives can be truly embedded under say but not under predicates such as know (or even claim, which strictly speaking qualifies as a verb of saying). This is illustrated in (373).

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\(^80\) While piensa ‘thinks’ seems possible in (372), native speakers report that it strongly favors a quotative reading of the embedded clause (as opposed to a truly embedded reading); this contrasts with dice ‘says’, which does not seem to have this property; cf. also (365) and (366).
Future explorations of this topic may thus focus on the parallels between Adv-optatives and imperatives.

4.1.11 Summary

In this chapter, I have argued that the desirability in optatives (and the surprise in polar exclamatives) arises by virtue of a generalized exclamation operator EX. I have argued against a matrix clause deletion approach, and shown that EX is an emotive, expressive and scalar operator that essentially conveys that the modified proposition is above a salient threshold on a contextually provided scale (e.g. speaker’s preferences). Subsequently, I have shown that there are other optatives that may not involve EX, but rather an optative-meaning-inducing speech act adverb. While EX-optatives are unembeddable, such Adv-optatives can sometimes be embedded. In the following section, I provide a brief review of Biezma (2011ab), a recent alternative approach to optatives.

4.2 An Alternative Approach: Deriving Desirability from the Pragmatics

4.2.1 Biezma (2011ab) in a nutshell

Biezma (2011ab) is dedicated to English if-(only)-optatives. The core questions that she aims to answer are the following. First, how is desirability derived in (374a+b)? Second, does (374b) have the structure of a conditional or not?

(374) a. If only I had been taller, I would have played in the NBA.

b. If only I had been taller!

(adapted from Biezma 2011a)
Biezma (2011ab) argues for an analysis of optatives that incorporates the following proposals. First, optatives are conditionals with an elided consequent. Deletion is modeled by means of a silent <st> type variable \( q_i \) in consequent position, which is abstracted over. As such, they have a structure as in (375). What surfaces as the if-optative in (374b) is an expression of type <st,t>, i.e. a set of propositions. (‘⇒’ is a place-holder for the semantics of the conditional modal \( \psi \).)

\[
\lambda q.p \Rightarrow q
\]

(375)  

\( \psi \)  

\( q_i \)  

antecedent  

(Biezma 2011b:116)

The second part of Biezma’s proposal is that optatives are conditionals with reverse topicality\(^{81}\). She observes that in regular conditionals, the antecedent is the topic and the consequent is focus (an idea Biezma adopts from Haiman 1978, Reinhart 1981, Ebert, Endriss & Hinterwimmer 2008). This entails that the antecedent can be elided, (377).

(376)  

A: What would happen after the fall of the dictatorial Government?  

B: If the government fell, a democratic system would be established.  

(Biezma 2011a)

(377)  

A: What would happen after the fall of the dictatorial Government?  

B: (If the government fell,) A democratic system would be established.

On analogy, Biezma argues that optatives are mention-some answers to a question of how to bring about some salient consequent.

(378)  

\textit{schematic representation of the information structure of an optative}  

A: How would I have brought it about that I played in the NBA?  

B: If only I had been taller(, I would have played in the NBA).

---

\(^{81}\) A similar view has been maintained for German dass-optatives and dass-polar exclamatives by Schwabe (2007:109), cf. Schwabe (2006), who assumes that such unembedded dass-clauses are the focused part of a larger construction involving an elided, backgrounded matrix clause.
Biezma then proceeds to argue that desirability arises because contexts in which optatives are felicitous involve an Immediate Question under Discussion (abbreviated as *IQuD*) that asks for sufficient conditions to bring something about. In such a context, optatives are then presented as mention-some answers as opposed to mention-all answers, which favors a goal-oriented question, (379), over a neutral question, (380). The mention-some nature of optatives is argued to be due to the semantics of *only*, which (in the spirit of Beaver & Clark 2008) marks the modified statement as the strongest answer to the IQuD (as opposed to an exhaustive answer to the IQuD).

(379)  a. How do we bring $\beta$ about?
    b. How would we have brought $\beta$ about?
    c. How do I get to [$\beta$ the supermarket / play in the NBA / #die]?

    $\Rightarrow$ desire for $\beta$ is implied/entailed
    (partially adapted from Biezma 2011a)

(380)  What are the circumstances that would bring about $\beta$?

        (Biezma 2011a)

        $\Rightarrow$ desire for $\beta$ is not implied/entailed; $\beta$ can be negative/neutral

Biezma aims to thus derive the intuition that what is desired in an optative is the implied consequent and not the denoted proposition (as Biezma 2011a argues, cf. Rifkin 2000, Asarina & Shklovsky 2008). I will review each of her sub-proposals in turn, arguing that there are problems with each of them, which need to be resolved in order to maintain such an analysis.

### 4.2.1 Are optatives conditionals?

One core assumption of Biezma’s (2011a) is that optatives are truly conditionals, where the consequent can be elided, cf. (381).
Though Biezma assumes that utterances like (382a) have a “conditional structure” and that “conditionals and optatives have the same underlying logical form”, she assumes that (382a) has the $[\lambda q.p \Rightarrow q]$ type denotation in (382b) via abstraction over the consequent (i.e. an optative denotes a property of propositions). She argues that this derives the unembeddability of if-optatives as well as the fact that they cannot be conjoined with propositions (cf. Rifkin 2000).

(382) a. If only it had rained!
   b. $\lambda q.\text{rain} \Rightarrow q$

A concern with respect to Biezma’s analysis is that it seems to predict that optatives should behave like answer fragments. While we have seen that this is indeed true with respect to embedding and conjunction (e.g. (247c)), this is not true with respect to modification by an adjunct clause. It is unclear how we could account for the asymmetry in (383a) vs (383b). Naturally, Biezma could assume that the optative in (383b) involves abstraction over a propositional variable in consequent position, as in (381), whereas a fragment answer like (383a) would simply involve deletion of a non-pronominal consequent. However, it is unclear what would motivate such a distinction, provided the purported similarity of the two constructions.

(383) a. A: Unter welchen Umständen wäre die Party ein Erfolg gewesen?
   under which circumstances were the party a success been
   ‘Under which circumstances would the party have been a success?’
Biezma argues that while regular conditionals have the topic-focus structure in (384b) and may serve to answer an implicit question as in (384b), optatives exhibit the inverse pattern, i.e. (385b), which can partially answer the implicit question in (385a). (The underlying assumption is that the Focus always answers the IQuD.)

(384)  a. *Immediate Question under Discussion:*
What would happen if p was the case?

b. \[[\text{Topic } (\text{If } \text{p})], [\text{Focus then } q] \]

(385)  a. *Immediate Question under Discussion:*
How would we get to be in a q situation?

b. \[[\text{Focus If only } \text{p}], [\text{Topic then } q] \]

Biezma views the core function of particles such as *only* in optatives to mark focus on the entire proposition in the antecedent proposition, thus indicating the proposed reversal of topicality. The idea is that the particle must takes a proposition-denoting complement (a
view that I largely share, cf. chapter 6) and associate with focus on the entire proposition in order to license optativity.

(386)  a. If only [mom invited grandpa]\_F (… he wouldn’t come).
       b. If only [MOM]\_F invited grandpa #(… he wouldn’t come).
(adapted from Biezma 2011a)

Particles are assumed to give rise to a reversal of information structure at the sentence level; optativity is thus licensed by the presence of a focus particle and not from its linguistic content. (See chapter 6 for my own view on this matter.)

Concerns for this view arise as follows. On the one hand, it is not clear that these claims can be maintained when we look beyond English. It appears that an optative reading, as glossed, is still available in (387), even though both clauses involve narrow focus on einer ‘one’. (It is relevant for the point that I make that nur ‘only’ is read in its non-exclusive only\textsubscript{2} reading, see chapter 6.2.)

(387) \textbf{Context: Hans came alone, which is why the event was canceled.}

   a. Ach, wenn Hans mit nur [EINER]\_F Begleitperson gekommen wäre!
oh if Hans with only one guest arrived were
   b. Ach, wenn Hans nur mit [EINER]\_F Begleitperson gekommen wäre!
oh if Hans only with one guest arrived had

✓ ‘Oh, if only Hans had brought at least one guest!’

(\textit{not intended}: ‘Oh, if only Hans had not brought more than one guest!’)

Similarly, in the following example, the focus that doch associates with indicates which aspect of the present situation the speaker would have liked to change (cf. Grosz 2011). Wide sentential focus does not appear to be necessary for an optative reading. These examples thus raise concern with respect to the assumption that focus particles in optatives serve to mark the entire antecedent as focus.
On the other hand, it is not clear in which respect optatives and co-occurring ‘consequents’ really behave like focused elements and topics respectively. Reis & Wöllstein (2010) show that regular conditionals typically only contain one focused constituent, which marks the new information. The examples in (389) are from Reis & Wöllstein (2010:148); I have added the context question, brackets, focus diacritic, glosses and translations.

(389)a. Under which circumstances would you drive a Bentley?
   if I millionaire were would I it do
   ‘If I were a millionaire, I’d do it.’

   b. What would you do if you were a millionaire?
   if I millionaire were would I BENTley drive
   ‘If I were a millionaire, I’d drive a bentley.’

Biezma’s analysis predicts that optatives with overt consequents should behave like (389a), i.e. it should be possible to deaccent the purported consequent. This does however not seem to be the case. We have already seen that optatives in German resist being truly integrated into a ‘consequent’, (390a). If we construe a grammatical example where the ‘consequent’ contains initial dann ‘then’ or a verb second configuration, both clauses seem to require a focus, as indicated in (390b+c). In terms of Reis & Wöllstein (2010) this indicates that both clauses have a separate focus-background structure, and they are
not parts of a superordinate focus-background structure. I consider this a serious issue for Biezma’s analysis.

(390)a.* Wenn ich **doch nur** MillioNÄR wäre, würde ich Bentley fahren.
   if I doch nur millioNAIRE were would I Bentley drive.
   ‘If only I were a millionaire, I’d drive a bentley.’
   
   b. Wenn ich **doch nur** MillioNÄR wäre, ich würde BENTley fahren.
      if I doch only millioNAIRE were I would BENTley drive.
      ‘If only I were a millionaire, I’d drive a bentley.’
   
   c. Wenn ich **doch nur** MillioNÄR wäre, dann würde ich BENTley fahren.
      if I doch only millioNAIRE were then would I BENTley drive.
      ‘If only I were a millionaire, I’d drive a bentley.’

Further evidence that optatives and their consequents are not parts of a larger focus-background structure stems from the (im)possibility of deaccenting the backgrounded part. As illustrated in (391b), where small font marks deaccentuation, deaccentuation of the consequent does not seem possible in an optative conditional. This contrasts with a regular conditional in (391a), where deaccentuation is allowed.

(391)a. *Under which circumstances would you drive a Bentley?*
   Wenn ich MillioNÄR wäre, dann würde ich Bentley fahren.
   if I millioNAIRE were then would I Bentley drive
   ‘If I were a millionaire, I’d drive a Bentley.’

   b.* Wenn ich **doch nur** MillioNÄR wäre, dann würde ich Bentley fahren.
      if I doch only millioNAIRE were then would I Bentley drive.
      ‘If only I were a millionaire, I’d drive a Bentley.’

This strongly suggests that an *if*-optative and its apparent consequent have separate topic-focus structure, in the sense that each of them must contain a separate focus. This calls the idea in question that *if*-optatives are ‘focus constituents’ themselves, with an optional overt consequent marking the background.

In fact, in the case of seemingly truly integrated *if*-optatives (which I presented above as counterexamples to Scholz’s unembeddability generalization), the matrix clause
requires an additional focus stress (and in fact the if-optative itself seems to require deaccentuation), shown in (392a); this further argues against a view of if-optatives as elements that are focused in Biezma’s sense.

(392)a. [Wenn ich doch nur könnte], würde ich sofort kommen.  
   if I DOCH only could I immediately could 
   ‘If only I could, I would come immediately.’ 

   b.* [Wenn ich doch nur KÖNnte], würde ich sofort kommen.  
   if I DOCH only could I immediately could 
   ‘If only I could, I would come immediately.’ 

4.2.3 Can we derive desirability from the discourse?

Biezma (2011a) further argues that the desired proposition in an optative is not the antecedent, but the consequent (also suggested in Rifkin 2000, and assumed in Asarina & Shklovsky 2008). The antecedent that is expressed in an optative is assumed to be the best means to bring about the consequent, and is thus marked by virtue of only. To back up her claim that the speaker actually desires the consequent and not the antecedent, Biezma provides the following example.

(393) A: If only I had been taller, I would have played in the NBA  
   B: That would not have been necessary, you were such a great player! 
      What would have made a difference was if you had been in a better college team. 
   A: Yeah…!, you are right…, If only I had played for UCLA, I would have played in the NBA 

   (Biezma 2011a)

In brief, Biezma argues for the following points. Optatives provide an answer to an implicit context question, which could a priori be (394a) or (394b).

(394) a. How would we get to be in a q situation? (goal oriented)  
     ⇒ desire for q is implied/entailed
b. Under which circumstances would a q situation arise?
⇒ desire for q is not implied/entailed; q can be negative/neutral

Due to the presence of only, the answer that an optative provides is marked as the best answer (i.e. as the strongest sufficient way of bringing about the desired q), based on Beaver & Clark (2008). Given that the answer to the contextual IQuD is non-exhaustive, a mention-some IQuD like (394a) is preferred over a mention-all IQuD like (394b), which would require an exhaustive answer. It follows that optatives are uttered in response to a goal oriented question. Goal-oriented questions entail desirability, which accounts for the difference between (395a) and (395b), missing in (396a) and (396b). This is how Biezma derives desirability in optatives.

(395) a. How do I get to arrive in NYC on time? (goal oriented)
   b. # How do I get to be arrested and tortured?

(396) a. Under which circumstances would I arrive in NYC on time? (neutral)
   b. Under which circumstances would I be arrested and tortured?

Schematically, an example for how to derive desirability in an optative is given in (397), a brief summary of Biezma’s (2011ab) own example.

(397) Background knowledge: John’s car broke down. He called his mechanic friend Tom, but Tom came too late to fix the car in time for John to get to his job interview in time.
   a. optative       Tom: If only I had arrived earlier!
       is a response to a goal oriented mention-some question
   b. inferred IQuD: How would John have gotten to his interview on time?
       this implies desirability due to its goal-oriented nature
Let me now review a few problems with this approach. First, an obvious conceptual problem concerns the issue that optatives cannot be used in response to an overt question, as shown in (398) and (399).

(398)  A: How would we have brought it about that John made it to his interview on time?
       B: # If only Tom had arrived earlier.

(399)  A: How would we have made it to the theater in time?
       B-1: If we had taken the number 7 bus.
       B-2: # If only we had taken the number 7 bus.

If we grant that this is a difference between overt questions and implicit IQuDs, the following issue arises.

Biezma’s analysis is based on the assumption that the speaker of an optative $p$ actually desires the implicit consequent $q$ and not necessarily the proposition $p$ itself. Let us review Biezma’s argumentation for this claim. Take Biezma’s example in (400a). Logically, there are three possible locations of the origin of the perceived wish. The speaker may wish for the antecedent, as shown in the paraphrase in (400b); the speaker may wish for the consequent, as shown in the paraphrase in (400c); and the speaker may wish for both, as shown in the paraphrase in (400d).

(400)  a. If only I had been taller, I would have played in the NBA.
        (Biezma 2011a)

        b. I wish I had been taller. Then I would have played in the NBA.

        c. If I had been taller, I could have played in the NBA, and I wish I could have played in the NBA.

        d. I wish I had been taller. Then I could have played in the NBA, and I wish I could have played in the NBA.
Biezma and I differ in that she assumes (400c), whereas I assume (400b). Neither of us argues directly for (400d), which may be conceptually motivated, as there seems to be no reason to assume that desirability is conveyed twice (though Rifkin 2000 may be seen as a proponent of (400d), as he argues that both antecedent and consequent must be desirable).

It can easily be shown that Biezma’s argument for (400c) and against (400b) is not convincing. Consider the evidence that she presents in (401). The idea is that the content of the optative hinges on our expectations of it being a good means to achieve the consequent.

(401) A: **If only** I had been taller, I would have played in the NBA
   B: That would not have been necessary, you were such a great player!
      What would have made a difference was if you had been in a better college team.
   A: Yeah…!, you are right…, **If only** I had played for UCLA, I would have played in the NBA
      (Biezma 2011a)

The problem that arises for this argument is that the variant in (402), in which the optative is replaced by a *wish* statement, seems to behave accordingly. Our wishes can be as contingent on fulfilling some greater purpose as optatives can, challenging the conclusion that Biezma draws. If we drew the same conclusion from (402) that Biezma draws from (401), it would follow that a statement of *I wish p* does not actually express a wish for *p*. This is evidently an undesirable result.

(402) A: **I wish** I had been taller. Then I would have played in the NBA
   B: That would not have been necessary, you were such a great player!
      What would have made a difference was if you had been in a better college team.
   A: Yeah…!, you are right…, **I wish** I had played for UCLA. Then I would have played in the NBA.
Quite generally, it seems that *wish*-statements trigger the desirability of a following proposition in just the same contexts in which optatives do. Example (403b) is just as illformed as (403a), and (404a) is just as acceptable as (404b). So Biezma’s examples do not bear on the question as to whether the denoted proposition in an optative *if*-clause is the locus of desirability or not.

(403)  a. # If only I had gone to the party last night… (then) I would have overslept.
       b. # I wish I had gone to the party last night… (then) I would have overslept.

(404)  a. If only I could have gone to the party last night… but I would have overslept.
       b. I wish I could have gone to the party last night… but I would have overslept.

In contrast, the following example, in (405), strongly challenges Biezma’s premise that the locus of desirability is outside of the optative *if*-clause. Biezma’s analysis predicts that the ill-formed continuation in (405b) should be well-formed, because (405b) should not entail a wish for snow *per se*. In this sense, (405b) should behave on a par with (405c) and no different from (405a). In contrast, it appears that (405b) cannot be continued as indicated\(^82\).

(405) *Context: I love snowboarding and I want to go snowboarding as often as possible.*

   a. If it snowed tonight, we would go snowboarding tomorrow …
      but I really don’t want it to snow, because I hate shoveling the sidewalks.

   b. If only it snowed tonight, we would go snowboarding tomorrow …
      #but I really don’t want it to snow, because I hate shoveling the sidewalks.

   c. If it snowed tonight, we would go snowboarding tomorrow, and I wish we
      would go snowboarding tomorrow … but I really don’t want it to snow, because
      I hate shoveling the sidewalks.

\(^82\) The contrast between (405b) and (405c) is a special instantiation of what we may call *Condoravdi & Lauer’s generalization* (cf. Condoravdi & Lauer 2010). Condoravdi & Lauer observe that optatives (like imperatives) cannot express inconsistent wishes, even though *wish* statements can be inconsistent.

i. Right now, I wish I lived in New York City and I wish I lived in Los Angeles, because I
   love many things about each of them and I’m really sick of living in a small city.

ii. # Oh, if only I lived in New York City and if only I lived in Los Angeles!

iii. # Oh, if only I lived in New York City! If only I lived in Los Angeles!
Example (405b), in contrast to (405c), suggests that the locus of desirability is in fact in the *if*-clause, and not in the implied consequent. This observation supports my view and challenges Biezma’s view. The fact that desirability is not defeasible in (405b) further suggests that desirability is an entailment of optative utterances, and not simply an implicature.

Note that examples like (406a) do not pose a problem to my account (or an argument for Biezma’s account), as wishes can indeed derived from a greater good; (406b) is well-formed and semantically consistent. In this case, the speaker’s death is indeed high on the speaker’s preference scale; why this is the case is secondary (though in this example the answer is provided immediately).

(406) a. **If only** I had died instead of my king … (then) my king would still be alive.

b. **I wish** I had died instead of my king! Then my king would still be alive.

We can thus conclude that there are several issues for Biezma’s approach that my analysis does not face. This discussion concludes the present chapter, and I will now proceed to discuss the role of mood in optatives.
5. On the Role of Mood in Exclamations

This chapter extends the proposal outlined in section 3.2.4 and presents my analysis of mood in exclamations. I use the term mood to refer to semantic mood (Portner’s 1997, 2006 notional mood), including notions such as counterfactuality and factivity; I use the term m-mood to refer to morphological mood marking (e.g. subjunctive/indicative) on the verb. I proceed by presenting my core proposal and then focus on integrating my proposal into our current knowledge with respect to mood.

5.1 The Core Proposal: Connecting V to C via Mood

5.1.1 Two Puzzles

I have argued for a uniform EX-Op approach to optatives and other exclamations, such as polar exclamatives. What we notice is that German exclamations exhibit variation across two dimensions, illustrated for optatives in (407) and (408). First, optatives vary more or less freely in their choice of complementizer (dass ‘that’ in (407a)+(408a) or wenn ‘if’ in (407b)+(408b)) or (V-to-)T-to-C movement (in (407c)). (I will henceforth use the abbreviation V1 for (V-to-)T-to-C movement in exclamations.) Secondly, they vary in their m-mood marking, which correlates with counterfactuality (in the case of the subjunctive) in (407), and non-counterfactuality (in the case of indicative) in (408). Under my uniform proposal, each of these utterances contains an exclamation operator EXS, the meaning of which is repeated from (138) in (409).

(407) subjunctive (and counterfactual) optatives

a. \[EXS [Daß er nur rechtzeitig gekommen wäre]!\]
that he only in.time come were

b. \[EXS [Wenn er nur rechtzeitig gekommen wäre]!\]
if he only in.time come were

c. \[EXS [Wäre er nur rechtzeitig gekommen t\textsubscript{wäre}]!\]
were he only in.time come
‘If only he had come in time!’
indicative optatives

a. [EX$_S$[Daß er nur rechtzeitig gekommen ist]! that he only in.time come is

b. [EX$_S$[Wenn er nur rechtzeitig gekommen ist]! if he only in.time come is

‘If only he has come in time!’

For any scale $S$ and proposition $p$, interpreted in relation to a context $c$ and assignment function $g$, an utterance EX($S$)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

“EX expresses an emotion that captures the fact that $p$ is higher on a (speaker-related) scale $S$ than all contextually relevant alternatives $q$ below a contextual threshold.”

where THRESHOLD($c$) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale $S$.

Two puzzles arise. The first puzzle is what determines complementizer selection and the possibility of V1 (e.g. when do they distribute freely? When are they restricted and how?). The second puzzle concerns the question of how presuppositions on the status of the denoted proposition arise in a uniform approach to exclamations. The standard assumption for predicates like want or wish is that their core semantic meanings are identical to each other’s (and similar to that in (409)), while they lexically differ in their presuppositions. Villalta’s (2007) core semantics for predicates of desire (cf. Heim 1992) is given in (410a). In addition to this shared truth-conditional meaning, want presupposes the non-counterfactuality of the modified proposition and its relevant alternatives, (410b), and wish presupposes the counterfactuality of the modified proposition, (410c).

Villalta’s (2007) semantics for want and wish; based on Heim (1992)

a. if defined $||$want$_C$|$^f$(p)(a)(w) = $||$wish$_C$|$^f$(p)(a)(w) = 1 iff

$\forall q[[q \neq p \& q \in g(C)] \rightarrow p >_{DEsa,w} q]$

“The speaker prefers the denoted proposition $p$ over all relevant contextual alternatives.”

b. $||$want$_C$|$^g$(p)(a)(w) is defined iff $\forall q[q \in g(C) \rightarrow Dox_a(w) \cap q \neq \emptyset]$

“want is defined iff the denoted proposition $p$ is still a real possibility.”
c. \(|\text{wish}_c|^{\text{E}}(p)(a)(w)\) is defined iff \(p \cap \text{Dox}_a(w) = \emptyset\)

“\text{wish} is defined iff the denoted proposition \(p\) is false in the utterance context.”

(Villalta 2007:108)

In a uniform analysis of \(EX_s\), presuppositions like (410b) and (410c) cannot be part of the lexical meaning of \(EX_s\), given that \(EX_s\) is compatible both with counterfactual optatives, (411), and non-counterfactual optatives, (412).

(411)a. subjunctive (and counterfactual) optatives

[\(EX_s\) [Wenn er nur rechtzeitig gekommen wäre]!]

if he only in.time come were

‘If only he had come in time!’

b. intuitive paraphrase: ‘I wish that he had come in time (and he didn’t).’

(412)a. indicative optatives

[\(EX_s\) [Wenn er nur rechtzeitig gekommen ist]!]

if he only in.time come is

‘If only he has come in time!’

b. intuitive paraphrase: ‘I want that he came in time (and he may have).’

If we were to assume that \(EX_s\) comes in different flavors, a counterfactual \(EX\) and a non-counterfactual \(EX\), this amounts to positing a null \(WISH\) operator (cf. Kyriakaki 2007, 2008, 2009 for such a view) and a null \(WANT\) operator, as given in (413). Such a move amounts to generalizing to the ‘worst case scenario’, as we could no longer maintain a uniform analysis to different types of exclamations. Until it becomes clear that this is the correct approach, I pursue the option in (411)+(412), to see how far it can be pushed.

(413)a. subjunctive (and counterfactual) optatives

[WISH [Wenn er nur rechtzeitig gekommen wäre]!]

if he only in.time come were

‘If only he had come in time!’

---

83 See also Iatridou (2000).
b. indicative optatives

\[ \text{[WANT [Wenn er nur rechtzeitig gekommen ist]}!} \]

\[
\text{if he only in time come is}
\]

‘If only he has come in time!’

In brief, the two puzzles we aim to solve are (i.) how to account for what material occurs in the position of C in an exclamation (dass ‘that’, wenn ‘if’ or the finite verb), and (ii.) how to derive the wish/want-type presuppositions that are intuitively present in exclamations.

5.1.2 One Solution (in a nutshell)

How can we proceed from here? What I propose is that we can derive the presuppositions of different EXS utterances by proposing an analysis of semantic mood in exclamations. My proposal is inspired by Truckenbrodt (2006ab) (and the reply by Portner 2006) and argues that complementizer selection / V1 are part of a split-mood-marking system. I argue that every German clause is anchored to the context by means of semantically interpreted mood features, one of which is a counterfactual mood feature, given in (414). Clearly, (414) is tantamount to the presupposition that Villalta (2007) ascribes to the lexical meaning of wish, in (410c). Therefore, a combination of EXS and Mood_CF gives rise to the desired meaning, as shown in (415). Given that (415) successfully derives the intuited meaning of such utterances, the analysis seems to be on the right track. But how do we connect the semantic mood feature (here: Mood_CF) to m-mood and to the material that occupies C?

(414) \[ ||\text{Mood}_{CF}||^c = \lambda p . \lambda w : p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset . p(w) \]  

\[ \text{COUNTERFACTUALITY}^{84} \]

“The speaker presupposes \( p \) to be false.”

---

84 This is a simplification, as it is an open question whether there are any utterances that ever truly presuppose counterfactuality, cf. Anderson (1951), Iatridou & Embick (1994), von Fintel (1997), Biezma (2011b). Scholz (1991) argues that there are even optatives in the subjunctive that are not counterfactual (her potentialis optatives); as evidence, she provides German versions of (i)-(vi). Given the pragmatics of wishes, it is not clear that any of these do not presuppose counterfactuality at some level.

i. If only spring would come!  
ii. If only he would get well soon!  
iii. If only Paul came back home soon!  
iv. If only this car would park here again tomorrow!  
vi. If only I would finish this task soon!
subjunctive (and counterfactual) optatives (preliminary sketch)

a. \[ \text{EX}_{\text{preferences}} \left[ \text{Mood}_{\text{CF}} \ (\text{Wenn}) \ Otto \ nur \ rechtzeitig \ gekommen \ \text{wäre}]! \]
   if Otto only in.time come were
   ‘If only Otto had come in time!’

b. \[ \text{Mood}_{\text{CF}} \Rightarrow (415a) \text{ is defined iff } Otto-\text{came-in-time} \cap \text{Dox}_{\text{speaker}}(w) = \emptyset \]
   in words: “I presuppose that Otto didn’t come in time.”

c. \[ \text{EX}_{\text{preferences}} \Rightarrow (415a) \text{ is felicitous iff } \forall q [\text{THRESHOLD}(c) > \text{preferences} q \rightarrow O-\text{came-in-time} > \text{preferences} q] \]
   in words: “I express my emotion towards the desirability of Otto having come in time.”

I argue for a split-mood-realization system, where complementizer choice / V1 and mood are both consequences (or even overt expressions) of a semantically interpreted mood feature, as sketched (informally) in (416). (A system where mood is realized both in C and a lower Mood head has been proposed before, cf. Giorgi & Pianesi 1997, 2004, Kempchinsky 1986 and Quer 1998. The relevant idea is summarized in Giorgi 2009, who calls this an instance of discontinuous morphology, where mood is realized in a scattered way, employing both the complementizer and the morphological mood on the verb.)

(416)a. Ach, \textit{wenn} es geregnet \textit{hätte}!
   oh if it rained had
   ‘If only it had rained!’

b. \[ \begin{array}{c}
   \text{C[ Mood]} \\
   \text{wenn} \\
   \text{es geregnet} \\
   \text{hätte}
   \end{array} \]

In what follows, I first motivate the proposed connection between the overt content of the C position and semantic mood presuppositions, in section 5.1.3. I then argue (in section
5.1.4 that split-realization of Tense/Aspect/Mood information across the C/INFL-system (where C and Mood/T distributively spell-out Mood or Tense information) is a more wide-spread phenomenon, and not idiosyncratic to the configurations that I am looking at, corroborating the view that I am pursuing. Subsequently, I focus on the syntactic implementation of my proposal (in section 5.1.5) and discuss additional motivation for my approach (in section 5.1.6).

5.1.3 Arguing for a split-mood-realization system in German exclamations

Consider first the empirical scope of the present discussion: Three types of exclamation in German, counterfactual optatives, non-counterfactual optatives, and polar exclamatives. A benchmark example of each construction is given in (417).

(417)a. Daß Otto nur rechtzeitig gekommen wäre! \textit{counterfactual optative}
that Otto only in.time come were
‘If only Otto had arrived in time!’

b. Daß Otto nur rechtzeitig gekommen ist! \textit{non-counterfactual optative}
that Otto only in.time come is
‘If only Otto has arrived in time!’

c. Daß Otto doch glatt rechtzeitig gekommen ist! \textit{polar exclamative}
that Otto doch outright in.time come is
‘[I’m shocked] that Otto has arrived in time!’

The purpose of this section is to argue that in each of these constructions the possible choices of overt complementizers (\textit{wenn} ‘if’ vs \textit{dass} ‘that’) and V1 are connected to the semantic mood of these clauses\textsuperscript{85}. To do so, I first posit an approximation of the mood

\textsuperscript{85} The idea that V1 is connected to the mood of the clause it occurs in is based on Truckenbrodt (2006ab) and Portner (2006), but the roots of this idea go back much further. Many authors working on Germanic verb second (the type of V-to-INFL-to-C movement that is also commonly assumed to underly V1 in German and other Germanic languages) have linked verb second (short: \textit{V2}) to tense / finiteness (Thiersch 1978, Koeneman 2000, 2010, Ackema et al. 1993, Bury 2003, 2010, see Jouitteau 2010 for a discussion). An alternative view maintains that Germanic V2 is connected to illocutionary force (Andersson 1975, den Besten 1983, Wechsler 1991, Bennis 1998, Gärtnert 2001, Koster 2003, Brandner 2004, Heycock 2006, Truckenbrodt 2006ab, Julien 2007, Bentzen et al 2007, Brandner 2010; see Holmberg 2010 for an overview; Wiklund 2009, Migdalski 2010 for criticism.) Truckenbrodt (2006ab) implements the connection
that these clauses contain and then I show how such semantic mood co-determines the possible content in C.

Example (417a) clearly presupposes that Otto did not arrive in time, indicating that there must be a counterfactual mood marker in this clause, implemented by means of the lexical entry in (418a). Similarly, (417c) presupposes that Otto did arrive in time, which I implement in terms of a factive mood marker, (418c). Finally, (417b) is non-counterfactual and non-factive; whether Otto arrived in time or not is unresolved; we can assume that this construction contains unmarked mood (or default mood), (418b). The implicature that Otto may still have made it arises from the competition between (418b) and (418a); the implicature that it is not yet certain whether Otto has made it arises from the competition between (418b) and (418c). In the sense of Ritter & Wiltschko (2009, 2010), semantic mood serves to anchor a proposition with respect to the actual world. No more needs to be said at this point.

\[(418)\text{a. } ||i\text{Mood}_{\text{CF}}||^c = \lambda p \cdot \lambda w : p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset \cdot p(w) \quad \text{COUNTERFACTUALITY}^{86}\]

“The speaker presupposes \(p\) to be false.”

b. \( ||i\text{Mood}_{\text{DEF}}||^c = \lambda p \cdot \lambda w : p(w) \quad \text{UNMARKED MOOD}\)

(iMood\text{DEF} does not trigger any presuppositions with respect to the truth or falsity of \(p\))

c. \( ||i\text{Mood}_{\text{FACT}}||^c = \lambda p \cdot \lambda w : \text{Dox}_{\text{speaker}}(w) \subseteq p \cdot p(w) \quad \text{FACTIVITY}^{87}\)

“The speaker presupposes \(p\) to be true.”

to illocutionary force by linking German V-to-C movement to belief states; Portner (2006), in his reply, argues for a link between German V-to-C movement and (semantic) mood. On the one hand, I see myself as pursuing the Portner-Truckenbrodt vision of linking V-to-C movement to belief states/mood. On the other hand, I see myself as continuing the tradition of linking V-to-C movement to something tense-related (taking into account the Tense-Aspect-Mood connection).

86 The distinction between Mood_{CF} and Mood_{DEF} as the marked and unmarked mood respectively mirrors the standard view on (marked) subjunctive versus (unmarked) indicative conditionals, cf. Stalnaker (1975), von Fintel (1997), but criticized in Leahy (2011). There is an open question whether any clauses ever convey strict counterfactuality, cf. Biezma (2011b), who argues, against Iatridou & Embick (1994), that subjunctive conditionals are never truly counterfactual. A slight modification of my system would posit iMood_{PROTO-CF}, which simply indicates remoteness of the modified proposition from the actual world (as suggested by Schlenker 2004 for counterfactual conditionals), and not falsity of the modified proposition. For simplicity, I will maintain the analysis in (418a), as it is not crucial to the core of my analysis how this issue should be resolved.

87 The idea that there is a separate factive mood that may find expression by virtue of a complementizer is supported by the observation that Modern Greek has a specialized factive complementizer pu ‘that’, which contrasts with the neutral complementizer oti ‘that’, e.g. Roussou (2010).
While it is trivial that semantic mood co-determines m-mood (both iMood\textsubscript{DEF} and iMood\textsubscript{FACT} employ the indicative, whereas iMood\textsubscript{CF} employs the subjunctive), my proposal holds that semantic mood also co-determines what material shows up in C.

Evidence for this proposal stems from the difference between the three exclamations with respect to what they allow in their C position. What (419)-(423) show is that semantic mood correlates with complementizer selection and the possibility of V1. First, we observe in (419) that exclamations with counterfactual mood (iMood\textsubscript{CF}) allow for dass ‘that’, wenn ‘if’ and V1.

(419) subjunctive (and counterfactual) optatives

a. Daß er nur rechtzeitig gekommen wäre!
   that he only in.time come were
b. Wenn er nur rechtzeitig gekommen wäre!
   if he only in.time come were
c. Wäre er nur rechtzeitig gekommen wäre!
   were he only in.time come

‘If only he had arrived in time!’

The most striking contrast is between (419) and (420). The pattern in (420) suggests that exclamations with default mood (iMood\textsubscript{DEF}) require dass ‘that’ or wenn ‘if’ and disallow V1.

(420) indicative (and non-counterfactual / non-factive) optatives

a. Daß er nur rechtzeitig gekommen ist!
   that he only in.time come is
b. Wenn er nur rechtzeitig gekommen ist!
   if he only in.time come is
c.* Ist er nur rechtzeitig gekommen ist!
   is he only in.time come

‘If only he has arrived in time!’
The contrast between (419) and (420) is not trivial, as German does otherwise allow for V1 in indicative conditionals, as shown in (421).

(421)  *conditional inversion in indicative conditionals*

a.  **Wenn** er rechtzeitig gekommen **ist**, dann hat das Fest schon begonnen.  
    *if* he *in.time* *come is* *then* has *the party* *already* *started*  

b.  **Ist** er rechtzeitig gekommen **t_iast**, dann hat das Fest schon begonnen.  
    *is* he *in.time* *come* *then* has *the party* *already* *started*  

‘If he has arrived in time, then the party has already started by now!’

How to account for the difference between (419) and (420) emerges as a puzzle. Why do counterfactual optatives allow for V1, while non-counterfactual optatives do not? By linking C to semantic mood, we now have a solution. Example (419) involves counterfactual mood features, whereas (420) involves default mood. In exclamations, these seem to behave differently, giving rise to the generalization in (422). (For indicative conditionals, I follow Reis & Wöllstein 2010, who propose that we may be dealing with an interrogative clause adjoined to a matrix clause, based on Haiman 1978, Traugott 1985, Reich 2009. See section 5.3.1 for a discussion of mood in interrogatives.)

(422)  *generalization on C filling and semantic mood in exclamations (first version)*

a.  LF:  C + [iMood$_{CF}$]  ⇔  PF:  \{dass ‘that’, wenn ‘if’, V1\}

b.  LF:  C + [iMood$_{DEF}$]  ⇔  PF:  \{dass ‘that’, wenn ‘if’\}

Let us now turn to polar exclamatives, the third type of exclamation that I study. Here, again, a different pattern emerges, corroborating the view that C selection / V1 correlates with semantic mood. As we see in (423), polar exclamatives allow for dass ‘that’ and V1, but not for wenn ‘if’. This gives rise to the revised generalization in (424).

(423)  *indicative (and factive) polar exclamatives*

a.  **Daß** er doch glatt rechtzeitig gekommen **ist**!  
    *that* he *doch outright in.time* *come is*
b.* Wenn er doch glatt rechtzeitig gekommen ist!
if he doch outright in.time come is

c. Ist er doch glatt rechtzeitig gekommen t_{ist}!
is he doch outright in.time come is

‘[I’m shocked] that he came in time!’

(424) generalization on C filling and semantic mood in exclamations (second version)

a. LF: C + [iMood_{CF}] ⇔ PF: \{dass ‘that’, wenn ‘if’, V1\}

b. LF: C + [iMood_{DEF}] ⇔ PF: \{dass ‘that’, wenn ‘if’\}

c. LF: C + [iMood_{FACT}] ⇔ PF: \{dass ‘that’, V1\}

Notably, we can observe that these patterns really correlate with semantic mood and not with m-mood. If we interpret a polar exclamative with respect to a counterfactual context, via implicit conditionalization, the semantic mood would still be factive (given that it is presupposed to be true that the denoted proposition would hold in the counterfactual circumstances). The pattern in (425) mirrors the factive pattern in (423) and not the counterfactual pattern in (419). I propose that this follows, as the selection of material in C is co-determined by the semantic mood of the clause (and not by the m-mood on the verb).

(425) (factive) polar exclamatives in the subjunctive

Stell dir vor wir hätten ihn nicht am Ende aufgehalten.
imagine you v.PRT we had him not in.the end stopped
‘Imagine we hadn’t stopped him in the end!’

a. Daß er doch glatt rechtzeitig gekommen wäre!
that he doch outright in.time come were

b.* Wenn er doch glatt rechtzeitig gekommen wäre!
if he doch outright in.time come were

c. Wäre er doch glatt rechtzeitig gekommen t_{wäre}!
were he doch outright in.time come

‘[I’m shocked] that he would have come in time!’

213
Concluding this section, (426) summarizes the distribution of different complementizers and/or V1 in different exclamations.

\[
\begin{array}{|c|c|c|c|}
\hline
& \text{daß} & \text{wenn} & \text{V1} & \text{structure} \\
\hline
\text{iMood}_{\text{FACT}} & \checkmark & \times & \checkmark & \text{polar exclamative} \\
\text{iMood}_{\text{CF}} & \checkmark & \checkmark & \checkmark & \text{counterfactual optative} \\
\text{iMood}_{\text{POSS}} & \checkmark & \checkmark & \times & \text{non-counterfactual optative} \\
\hline
\end{array}
\]

Having argued that semantic mood co-determines not only m-mood on the verb but also the nature of overt material in C, the following section argues such split markings of TAM-information can be found in other areas of grammar as well, indicating that this is not an isolated phenomenon.

5.1.4 Generalized split-TAM

This section focuses on an analogous phenomenon with respect to tense marking. As we have seen split-mood-realization, I show that we also find split-tense-realization. This observation further corroborates the idea that overt material in C is connected to information in the INFL domain.

In German temporal adjuncts, the temporal non-conditional variant of \textit{wenn} ‘when’ co-occurs with non-past tense marking on the verb, (427a), whereas \textit{als} ‘when’ correlates with past tense marking, (427b).

\[(427) \quad \text{a. Wenn/*Als du morgen ankommst, schlafe ich wahrscheinlich schon.}
\]

\[
\quad \text{when you tomorrow arrive sleep I probably already}
\]

\[
\quad \text{‘When(/#If) you arrive tomorrow, I’ll probably be asleep already.’}
\]

\[
\quad \text{b. Als/*Wenn du gestern angekommen bist, habe ich schon geschlafen.}
\]

\[
\quad \text{when you yesterday arrived are have I already slept}
\]

\[
\quad \text{‘When(/#If) you arrived yesterday, I was already asleep.’}
\]

Notably, German present tense (on the inflected verb or auxiliary) is ambiguous between a present progressive, a narrative past and a futurate interpretation. (In this sense, it is the most unmarked tense form.) What is important is that \textit{als} ‘when’ can disambiguate a
present tense adjunct clause towards a past tense interpretation, whereas *wenn* ‘when’ disambiguates an identical clause towards the future. (Example (428a) is a naturally occurring example from http://redfoxtravelbox.wordpress.com/ – (428b) is a minimally contrasting example that I constructed.)

(428) a. **Als ich ankomme, ist es wieder Mitternacht.**
when I arrive is it already midnight
‘When I arrive (*narrative present = past*), it is already midnight again.’
≈ ‘When I **arrived**, it **was** already midnight again.’
⇒ There is a past time t, such that I arrived at t and it was already midnight at t.
≠ #‘When I **arrive**, it **will** already **be** midnight again.’

b. **Wenn ich ankomme, ist es wieder Mitternacht.**
when I arrive is it already midnight
‘When I arrive (*futurate present = future*), it is already midnight again.’
≈ ‘When I **arrive**, it **will** already **be** midnight again.’
⇒ There is a future time t, such that I arrive at t and it is already midnight at t.
≠ #‘When I **arrived**, it **was** already midnight again.’

Here, C alone serves to disambiguate between two distinct temporal interpretations of the clause (semantically interpreted past and semantically interpreted future). This is reminiscent of the pattern in section 5.1.3. Based on the above discussion, we can construct a similar example, where complementizer selection alone serves to disambiguate semantic mood in optatives. Ignoring for now the correlations between optativity and non-factivity, and between polar exclamative readings and factivity, (429) shows that indicative exclamatives are disambiguated towards default mood when they contain *wenn* ‘if’ (as *wenn* ‘if’ is incompatible with factive), (429a), and towards factive mood when they involve V1 (as V1 is incompatible with default mood), (429b).

(429)a. **Oh, wenn es jetzt nur/*doch tatsächlich geregnet hat!**
oh if it now only/*doch indeed rained has
‘Oh, if only it rained now!’
⇒ ✓ iMood\textsubscript{DEF} (+ optative interpretation)
⇒ * iMood\textsubscript{FACT} (+ polar exclamative interpretation)
b. Oh, hat es jetzt doch/**nur tatsächlich geregnet that!
oh has it now doctr/**only indeed rained
‘Oh, that it really rained after all!’
⇒ * iMood_{DEF} (+ optative interpretation)
⇒ ✓ iMood_{FACT} (+ polar exclamative interpretation)

In brief, (428) instantiates a contrast for tense that is similar to the contrast (429) instantiates for mood. A similar point is made by (430), where, once again, it can be assumed that different shades of semantic mood may be responsible for the different likelihood presuppositions that the respective conditional conveys (cf. Reis & Wöllstein 2010 for a recent discussion of wenn ‘if, when’ versus falls ‘if, in case’).

(430)a. Wenn Otto kommt, gehe ich.
if Otto comes go I
‘If Otto comes (which is quite plausible), I’m leaving.’

b. Falls Otto kommt, gehe ich.
if Otto comes go I
‘If Otto comes (which I acknowledge to be rather unlikely), I’m leaving.’

To conclude this section, I propose that quite generally C agrees for Tense and Mood information with the respective heads in the INFL layer. This gives rise to particular patterns of overt information in the C position.

5.1.5 Syntactic implementation – On Mood movement and V1

I continue to focus on exclamations and propose that the free variation in C that we partly observe derives from the following assumptions. First, C and Mood/T must always share information via agreement; what is important for the patterns in exclamations is agreement between C and Mood. Second, the different options that we observe are connected to the presence/absence of movement. My proposal is inspired by Pesetsky & Torrego (2001), who argue that English that and for spell out tense features that have
moved from T-to-C without the auxiliary. I argue that there are three options that can be observed in German exclamations, summarized in (431); in words, the material in C depends on what (if anything) has moved to C from the INFL layer. We can implement this as in (432).

(431)a. dass ‘that’ spells out C on its own.
    b. wenn ‘if’ spells out [C [Mood]].
    c. V1 spells out [C [T [Mood]]].

First of all, Tense always contains interpretable [iT] features and Mood always contains interpretable [iMood] features, with values as given above (in (418)). Similarly, C always contains uninterpretable [uMood] features and Mood always contains uninterpretable [uT] features. Therefore, we always generate an agreement chain between C and Mood, as well as between Mood and T. Such agreement is sometimes accompanied by movement, which we can implement by means of an EPP feature, as is common practice. We can then sketch the relevant aspects of derivations as in (432). (I assume that m-mood on the tense auxiliary in (432b) is a reflex of Tense agreement between Mood and T.)

(432)a. \[ C[uMood, +EPP] \ldots \text{Mood}[iMood, uT, +EPP] \ldots T[iT] \Rightarrow C[uMood] \ldots T[iT] + \text{Mood}[iMood, uT] \ldots \langle T[iT] \rangle \]

    spell-out: \[ C[uMood] \Leftrightarrow \text{dass ‘that’} \]

b. \[ C[uMood, +EPP] \ldots \text{Mood}[iMood, uT, -EPP] \ldots T[iT] \Rightarrow \text{Mood}[iMood, uT] + C[uMood] \ldots \langle \text{Mood}[iMood, uT] \rangle \ldots T[iT] \]

    spell-out: \[ \text{Mood}[iMood, uT] + C[uMood] \Leftrightarrow \text{wenn ‘if’} \]

c. \[ C[uMood, +EPP] \ldots \text{Mood}[iMood, uT, +EPP] \ldots T[iT] \Rightarrow C[uMood, +EPP] \ldots T[iT] + \text{Mood}[iMood, uT] \ldots \langle T[iT] \rangle \]

    \[ \Rightarrow [T[iT] + \text{Mood}[iMood, uT] + C[uMood] \ldots \langle T[iT] + \text{Mood}[iMood, uT] \rangle \ldots \langle T[iT] \rangle \]

    spell-out: \[ [T[iT] + \text{Mood}[iMood, uT] + C[uMood] \Leftrightarrow \text{V1} \]

---

88 Especially for the purposes of V1, my proposal is further inspired by Koeneman (2000, 2010) and Bury (2003, 2010) who assume that Tense (which they believe to be the trigger for Germanic V2 and V1) originates in a lower and must be brought into a higher position, giving rise to verb movement. I make an analogous assumption for Mood.

89 See also Bjorkman (2011) for a related account of conditional inversion.
An illustration of the finished derivations can be given as in (433)\(^{90}\).

(433)a. *dass-scenario (curly brackets mark the base position of moved elements)*

b. *wenn-scenario*

c. *V1-scenario*

\(^{90}\) These graphs assume the copy theory of movement. As de Vries (2009) shows, an implementation of head movement is also possible in a theory that assumes internal and external remerge instead.
Having thus established a system for complementizer selection, we can restate the
generalization from (426) in (434).

<table>
<thead>
<tr>
<th>(434)</th>
<th>feature specifications</th>
<th>spell-out</th>
<th>compatible Mood values in exclamations</th>
</tr>
</thead>
<tbody>
<tr>
<td>C−EPP … Mood−EPP</td>
<td>dass</td>
<td>CF, DEF, FACT</td>
<td></td>
</tr>
<tr>
<td>C+EPP … Mood−EPP</td>
<td>wenn</td>
<td>CF, DEF (FACT)</td>
<td></td>
</tr>
<tr>
<td>C+EPP … Mood−EPP</td>
<td>Verb-First</td>
<td>CF, FACT (DEF)</td>
<td></td>
</tr>
</tbody>
</table>

What we observe in (434) is that dass ‘that’ seems to be the elsewhere case. Contrastively, cases where both C and Mood have the EPP property require a commitment on part of the speaker as to whether the denoted proposition is true (FACT) or false (CF). Finally, cases where only C has the EPP property disallow certainty (i.e. FACT is blocked). How can we derive these facts? Let me revisit the pattern from temporal adjunct clauses.

To do so, consider the following example of Dutch narrative inversion, in (435). Zwart (1997) conjectures (in footnote 28, page 219) that text-initial clauses (i.e. story openings) with narrative inversion are typically adjunct clauses, as such opening sentences require a subsequent main clause. I concur with this view and propose that temporal adjunct clauses also exhibit a tripartite pattern in C, very much similar to what we find in exclamations. This is illustrated in (436).

(435) Speel ik een aas, speelt mijn partner opeens troef.
play I an ace plays my partner at.once trump
‘I played an ace. Then suddenly my partner trumped.’
(Zwart 1997:219)

To explore the C-INFL link further, we establish the paradigm in (436) for German (which allows for narrative inversion on a par with Dutch, e.g. Önnerfors 1997ab).

(436)a. **Wenn** ich ein Ass ausspiele, übertrumpft mich mein Partner sofort.
when I an ace play trumps me my partner at.once
‘When I play an ace, my partner trumps instantly.’ *(non-past, futurate present)*
b. **Als ich ein Ass ausspiele, übertrumpft mich mein Partner sofort.**
   when I an ace play trumps me my partner at.once
   ‘When I played an ace, my partner trumps instantly.’  (*past, narrative present*)

c. **Spiele ich ein Ass aus + t_spiele, übertrumpft mich mein Partner sofort.**
   play I an ace V_PRT trumps me my partner at.once
   ‘When I played an ace, my partner trumps instantly.’  (*past, narrative inversion*)

Without going into the intricacies of temporal adjunct clauses, it seems plausible to assume that *als* ‘when’ is a realization of C on its own, whereas *wenn* ‘when’ and V1 involve movement. I will come back to this briefly. First of all, it is worth pointing out that (as Zwart 1997 observes) generic conditional-like statements are possible with *wenn*-clauses, like (436a)+(437a), and with clauses that involve verb-first, like (436c)+(437c). Temporal *als*-clauses cannot be used in a generic way, (437b).

> (437a). **Wenn ich ein Ass ausspiele, übertrumpft mich mein Partner immer.**
   when I an ace play trumps me my partner always
   ‘Whenever I play an ace, my partner trumps.’  (*non-past, generic*)

b.* **Als ich ein Ass ausspiele, übertrumpft mich mein Partner immer.**
   when I an ace play trumps me my partner always
   ‘Whenever I played an ace, my partner trumps.’

c. **Spiele ich ein Ass aus + t_spiele, übertrumpft mich mein Partner immer.**
   play I an ace V_PRT trumps me my partner always
   ‘Whenever I played an ace, my partner trumps.’  (*non-past, generic*)

The generalization for such adjunct clauses emerges as in (438). Somewhat simplistically, I again assume that *wenn* ‘when’ spells-out Mood movement, though I cannot go into the details of how Mood and Tense interact in such adjunct clauses.

<table>
<thead>
<tr>
<th>(438)</th>
<th>feature specifications</th>
<th>spell-out</th>
<th>compatible Tense values in adjuncts</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>C_{EPP} ... Mood_{+EPP}</td>
<td><em>als</em></td>
<td>PAST (narrative inversion)</td>
</tr>
<tr>
<td>b.</td>
<td>C_{+EPP} ... Mood_{-EPP}</td>
<td><em>wenn</em></td>
<td>(GENERIC,) FUTURE</td>
</tr>
<tr>
<td>c.</td>
<td>C_{+EPP} ... Mood_{+EPP}</td>
<td>Verb-First</td>
<td>(GENERIC,) PAST</td>
</tr>
</tbody>
</table>

---

91 Of course a possible confound here is that it is not clear whether we are dealing with a generic temporal clause or with a conditional clause that has a quantificational adverb in the matrix clause.
If we compare this distribution to the one we found in exclamations, we observe a parallel that may be insightful. Let us gloss over the case where no movement to C takes place, namely (438a)+(439a), as independent constraints may be at stake here (exclamations and possibly complement clauses using this as the elsewhere case, while adjuncts cannot do this). Then we find that the difference between Mood moving on its own, (438b)+(439b), and Mood moving together with T, (438c)+(439c), shows one parallel across these two fundamentally different construction types, which I will now discuss.

<table>
<thead>
<tr>
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<th>feature specifications</th>
<th>spell-out</th>
<th>compatible Mood values in exclamations</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>C−EPP … Mood+EPP</td>
<td>dass</td>
<td>CF, DEF, FACT</td>
</tr>
<tr>
<td>b.</td>
<td>C+EPP … Mood−EPP</td>
<td>wenn</td>
<td>CF, DEF</td>
</tr>
<tr>
<td>c.</td>
<td>C+EPP … Mood+EPP</td>
<td>Verb-First</td>
<td>CF, FACT</td>
</tr>
</tbody>
</table>

While genericity and counterfactuality in the respective construction type is compatible with both movement of Mood and movement of Mood+T (indicating, for exclamations, that counterfactual iMood can come with or without an EPP property), this is not the case for other Mood values. Specifically, we observe that the future-oriented Mood values (e.g. DEF) come without an EPP property and the past oriented Mood values (e.g. FACT) come without an EPP property (unless C lacks the EPP property as well, in which case T-to-Mood movement may be enforced in order to avoid auxiliary proliferation). The crucial insight is summarized in (440). We can establish the generalization in (441).

<table>
<thead>
<tr>
<th></th>
<th>feature specifications</th>
<th>spell-out</th>
<th>in exclamations</th>
<th>in adjunct clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>C+EPP … Mood−EPP</td>
<td>wenn</td>
<td>DEF, *FACT</td>
<td>FUTURE, *PAST</td>
</tr>
<tr>
<td>b.</td>
<td>C+EPP … Mood+EPP</td>
<td>Verb-First</td>
<td>FACT, *DEF</td>
<td>PAST, *FUTURE</td>
</tr>
</tbody>
</table>

(441) (When C has the EPP property, ) Mood behaves as follows:

i. When the clause exhibits future-orientation, Mood lacks the EPP property.

ii. When the clause exhibits past-orientation, Mood has the EPP property.

92 I call DEF ‘future-oriented’, as it implies that the truth of the modified proposition is unresolved, and I call FACT ‘past-oriented’, as it presupposes that the truth of the modified proposition is resolved. It is not entirely clear why CF and FACT do not completely match in their behaviors.
The motivating data are repeated below in (442) and (443).

(442) **wenn-clauses must be future-oriented (unless they are counterfactual/generic)**

a. **Wenn** ich ein Ass ausspielt, übertrumpft mich mein Partner sofort. when I an ace play trumps me my partner at.once
‘When I play an ace, my partner trumps instantly.’

b. Oh, **wenn** mich mein Partner jetzt nur/doch übertrumpft hat! oh if me my partner now only/doch trumps has
‘Oh, if only my partner has trumped me now!’
⇒ future-oriented in the sense that I do not yet know what is the case

(443) **V1-clauses must be past-oriented (unless they are counterfactual/generic)**

a. **Spiele** ich ein Ass aus tspielte, übertrumpft mich mein Partner sofort. play I an ace V.PRT trumps me my partner at.once
‘When I played an ace, my partner trumps instantly.’

b. Oh, **hat** mich mein Partner jetzt doch/*nur übertrumpft hat! oh has me my partner now doch/*only trumps
‘Oh, [I’m surprised] that my partner has trumped me now!’
⇒ past-oriented in the sense that I already know that this is the case

Further support that **wenn** ‘if, when’ is generally future-oriented (modulo its compatibility with counterfactuality) stems from the following contrast. I can utter the **wenn**-clause in (444) if it’s still an unresolved question whether the proposition in the **wenn**-clause is true or false. In contrast, I cannot utter it once it is already established to be true, as in (445b). In such a situation, (445a) must be used (as observed by Iatridou 1991 for English **since** versus **if**).

(444) *I don’t know yet if I’m sick, but I’m feeling a bit odd, so I called a doctor:*

In einer halben Stunde kommt der Arzt vorbei. in a half hour comes the doctor over
‘In half an hour, the doctor will drop by.’

**Wenn** ich krank bin, kann ich heute nicht kommen. if I sick am can I today not come
‘If I’m sick, I cannot come in today.’
(445)  *I’m calling in sick:*

  a. *Da ich krank bin, kann ich heute nicht kommen.*
     as I sick am can I today not come
     ‘Since I’m sick, I cannot come in today.’

  b. *Wenn ich krank bin, kann ich heute nicht kommen.*
     if I sick am can I today not come
     ‘If I’m sick, I cannot come in today.’

So, why would T-to-Mood movement correlate with past-orientation or future-orientation in this way? I conjecture that the underlying factor is that past tense is non-modal and future tense is modal, e.g. Abusch (1985); this may entail that in the past tense, Tense and Mood automatically conflate into a single INFL (via T-to-Mood movement), whereas in the future tense such conflation is non-automatic (possibly due to the presence of the future modal *woll*) and thus blocked in exclamations and adjunct clauses with Mood-to-C movement. The presence of counterfactuality or genericity in a clause may override such a distribution (e.g. due to the requirement for fake past tense expression, cf. Iatridou 2000), eliminating the observed asymmetries.

The next step is to integrate my proposal both with the broader literature on semantic mood and m-mood, and with the broader literature on verb second, specifically Truckenbrodt (2006ab), who is an indirect predecessor of my proposal. Before I proceed to do so (in sections 5.2 and 5.3), I will further motivate the idea that *dass* ‘that’ and *als* ‘when(past)’ are realizations of *C*, whereas *wenn* ‘if, when’ involves Mood-to-C movement.

### 5.1.6  On the Content of *C*

In this section, I briefly discuss the differences and similarities between *dass* ‘that’ / *als* ‘when’ and *wenn* ‘if, when’. I have argued that *wenn* ‘if, when’ involves movement of Mood, whereas *dass* ‘that’ and *als* ‘when’ spell out a C head in the absence of Mood movement. This view is supported by the formal and diachronic relations between these elements and other functional elements. Specifically, *dass* ‘that’ is formally and
diachronically related to the determiner and relative pronoun *das* ‘the, that’, (446), and *als* ‘when’ is related to the prepositional element *als* ‘as, than’, (447).

(446) a. Hans mag **das** Pferd.
Hans likes the horse
‘Hans likes the horse.’

   b. Ich sehe **das** Pferd [**das** Hans mag].
I see the horse that Hans likes
‘I see the horse that Hans likes.’

(447)a. Ich kenne F. M., den Sänger von “Schizo”, **als** einen ÖVP-Politiker.
I know F. M. the singer of Schizo as an OVP-politician
‘I know F. M., the singer of the song “Schizo”, as a politician in the ÖVP.’

   b. Wir sind anders **als** die anderen.
we are different from the others
‘We are different from the others.’

c. Das Ergebnis war anders **als** erwartet.
the result was different from expected
‘The result was different from what we had expected.’

d. Otto ist größer **als** Maria.
Otto is taller than Maria
‘Otto is taller than Maria.’

e. **Als** Jugendlicher hat Otto gerne gefeiert.
as youth has Otto with joy celebrated
‘As a young lad Otto used to love to celebrate.’

f. Hans gilt **als** Spezialist in diesem Gebiet.
Hans counts as specialist in this area
‘Hans counts as a specialist in this area.’

g. Sowohl Hans **als** auch Maria sind gekommen.
both Hans as also Maria are come
‘Both Hans and Maria have come.’

In recent literature, it has often been suggested that it is no coincidence that nominal elements (like *das*(s) and *als*) lexicalize complementizer positions (e.g. Roussou 2010 for Greek). Rather, this is a consequence of the parallel between clauses (CPs) and extended noun phrases (DPs). It is thus plausible that *dass* ‘that’ and *als* ‘when’ are true
realizations of C. Similarly, the assumption that wenn ‘if, when’ in complementizer position involves movement stems is motivated by its formal and diachronic relation to the wh-element wann ‘when’, as in (448).

(448) a. **Wann** kommt er?
   when comes he
   ‘When is he coming?’

   b. Ich weiß, wann er kommt.
   I know when he comes
   ‘I know when he’s coming.’

Notably, it can be shown that wenn ‘if, when’ does not involve wh-movement but simply head movement, provided that it involves movement, as it cannot cross clause boundaries (as opposed to phrasal wann ‘when’). Contrast (449a), with the wh-element wann ‘when’, with (449b), containing temporal wenn ‘when’, and (449c), with conditional wenn ‘if’.

(449)a. **Wann** ?(immer) du losfährst, (?*dann) gehe ich schlafen. wann-FR
   when always you drive.away then go I sleep
   ‘When’(ever) you’re leaving, (?*then) I will go to sleep.’

   b. **Wenn** (*immer) du losfährst, (dann) gehe ich schlafen. temporal
   when always you drive.away then go I sleep
   ‘When you’re leaving, (then) I will go to sleep.’

   c. **Wenn** (*immer) du losfährst, (dann) gehe ich schlafen. conditional
   when always you drive.away then go I sleep
   ‘If you’re leaving, (then) I will go to sleep.’

As shown in (450), wann ‘when’ allows for low construal in an embedded clause, (450a), which is not possible for temporal wenn ‘when’, (450b), or conditional wenn ‘if’, (450c).

(450)a. **Wann** immer du gesagt hast, dass du losfährst, gehe ich schlafen.
   when always you said have that you drive.away go I to.sleep
   ‘Whenever you said [that you’re leaving], I will go to sleep.’

   ✓ high construal  –  ✓ low construal: “I will go to sleep when you’re leaving.”
b. **Wenn** (*immer*) du gesagt hast, dass du losfährst, gehe ich schlafen. 
when always you said have that you drive.away go I to.sleep 
‘As soon as / When / Once you’ve said [that you’re leaving], I will go to sleep.’

✓ high construal – * low construal

c. **Wenn** (*immer*) du gesagt hast, dass du losfährst, gehe ich schlafen. 
if always you said have that you drive.away go I to.sleep 
‘If you’ve said [that you’re leaving], I will go to sleep.’

✓ high construal – * low construal

The contrast in (450) indicates that any movement that involves **wenn** ‘if, when’ should involve head movement, as opposed to wh-movement. This is consistent with a view under which **wenn** ‘if, when’ is a spell out of Mood-in-C, due to Mood-to-C movement (a type of head movement).

### 5.1.7 Interim Summary

In this section, I presented a proposal for how to analyze different presuppositions (e.g. counterfactuality, factivity) that we find in exclamations and how to account for complementizer selection and V1 in exclamations. I proposed (in section 5.1.3) that semantic mood is encoded by means of presupposition-triggering mood features and then argued (in section 5.1.4) that m-mood on the verb and the realization of material in C are consequences of a system where mood is overtly marked in two locations, C and INFL (the latter of which encompasses Mood and T). I presented a syntactic implementation in section 5.1.5 and reviewed further motivation in section 5.1.6. The larger goal of the following sections is to contextualize this proposal with respect to the larger literature on mood and mood selection, in section 5.2, as well as the literature on verb second in German, in section 5.3.
5.2 Mood Selection

5.2.1 Out in the Optative Left Field: An Apparent Selection Problem

In the previous section, I argued for a view where complementizer selection and V1 in German are due to the semantic mood that a clause contains, where semantic mood includes concepts such as counterfactuality and factivity. My analysis covers factive polar exclamatives, such as (451), counterfactual optatives, such as (452), and optatives that are neither factive nor counterfactual, such as (453).

(451) indicative (and factive) polar exclamatives

a. Daß Sie (doch / tatsächlich / wirklich) daran gedacht haben!
   that you indeed really of.it thought have
   ‘[It’s remarkable] that you really thought of it!’

b. Haben Sie doch (tatsächlich / wirklich) daran gedacht haben!
   have you indeed really of.it thought have

(452) subjunctive (and counterfactual) optatives

a. Daß er (doch) nur rechtzeitig gekommen wäre!
   that he only in.time come were
   ‘If only he had come in time!’

b. Wenn er (doch) nur rechtzeitig gekommen wäre!
   if he only in.time come were

(453) indicative (and non-counterfactual / non-factive) optatives

a. Daß er nur rechtzeitig kommt!
   that he only in.time comes
   ‘If only he comes in time!’

b. Wenn er nur rechtzeitig kommt!
   if he only in.time comes
I have argued that all of these utterances contain a generalized exclamation operator $EX$, which combines with a contextually provided scale. This scale is a speaker-oriented preference scale in the case of optatives, and a speaker-oriented inverse likelihood scale (or unlikelihood scale) in the case of polar exclamatives. A generalization that arises at this point is that the combination of scale and mood does not seem entirely arbitrary. Specifically, preference scales (underlying optative utterances) correlate with non-factive mood, whereas unlikelihood scales (underlying polar exclamatives) correlate with factive mood, as given in (454).

<table>
<thead>
<tr>
<th>scale</th>
<th>preference</th>
<th>unlikelihood</th>
<th>example</th>
</tr>
</thead>
<tbody>
<tr>
<td>factive</td>
<td>? unattested?</td>
<td>✓</td>
<td>(451)</td>
</tr>
<tr>
<td>counterfactual</td>
<td>✓</td>
<td>? unattested?</td>
<td>(452)</td>
</tr>
<tr>
<td>non-factive non-counterfactual</td>
<td>✓</td>
<td>? unattested?</td>
<td>(453)</td>
</tr>
</tbody>
</table>

The question arises whether there is anything that corresponds to the question marks in (454). Have we been just ignoring something that exists, or is there something deeply unnatural about ‘factive optatives’ and ‘non-factive exclamations of surprise’?

Let me state the problem more clearly by looking at what my analysis currently derives. The following two examples recapitulate the meanings that I have proposed for the counterfactual optative, (452), and the factive surprise exclamation, (451). First, my analysis currently derives the perceived wish in an optative by virtue of the components in (455b+c), which give rise to the utterance meaning in (455d), with the communicative effect in (455e).

(455)  subjunctive (and counterfactual) optatives
  a.  [EX$_{preferences}$ [Mood$_{CF}$ (Wenn) Otto nur rechtzeitig gekommen wäre]]! if Otto only in.time come were ‘If only Otto had come in time!’

93 A connection between exclamatives and factivity has been at the core of research on degree exclamatives, as in Elliot (1971, 1974), Grimshaw (1979), Zanuttini & Portner (2000, 2003), Abels (2010).
b. Mood$_{CF}$ ⇒ (455a) is defined iff Otto-came-in-time ∩ Dox$_{speaker}(w)$ = ∅
   
   *in words:* “I presuppose that Otto didn’t come in time.”

c. EX$_{preferences}$ ⇒ (455a) is felicitous iff
   \[∀ q[THRESHOLD(c) > preferences q → O-came-in-time > preferences q]\]
   
   *in words:* “I express my emotion towards the desirability of Otto having come in time.”

d. **What the speaker conveys:**
   I express my emotion towards the fact that \[p\] Otto came in time] exceeds a salient threshold on my desirability scale, which marks the boundary between tolerable worlds (above) and intolerable worlds (below), and I presuppose that it is false that \[p\] Otto came in time].

e. **What this entails on part of the speaker:**
   I have an emotion towards the desirability of \[p\] Otto came in time].
   It is false that \[p\] Otto came in time].
   Therefore, I wish \[p\] Otto came in time].

Similarly, my analysis derives surprise by virtue of the components in (456b+c), which give rise to the utterance meaning in (456d) to the effect of (456e).

(456) **indicative (and factive) polar exclamative**

a. [EX$_{unlikelihood}$ [Mood$_{FACT}$ (Dass) Otto glatt rechtzeitig gekommen ist]]!
   
   *that* Otto outright in.time come is
   ‘That Otto really came in time!’

b. Mood$_{FACT}$ ⇒ (456a) is defined iff Dox$_{speaker}(w)$ ⊆ Otto-came-in-time
   
   *in words:* “I presuppose that Otto did come in time.”

c. EX$_{unlikelihood}$ ⇒ (456a) is felicitous iff
   \[∀ q[THRESHOLD(c) > unlikelihood q → O-came-in-time > unlikelihood q]\]
   
   *in words:* “I express emotion towards the unlikelihood of Otto having come in time.”
d. **What the speaker conveys:**

I express my emotion towards the fact that \( p \) Otto came in time] exceeds a salient threshold on my inverse likelihood scale, which marks the boundary between surprising worlds (above) and unsurprising worlds (below), and I presuppose that it is true that \( p \) Otto came in time].

e. **What this entails on part of the speaker:**

I have an emotion towards the surprisingness of \( p \) Otto came in time].

It is true that \( p \) Otto came in time].

Therefore, I am surprised that \( p \) Otto came in time].

Now we can state the problem explicitly. Are there utterances that have the combinations in (457a) or (458a), giving rise to the conversational effect in (457b) or (458b) (note the unclarity of how best to express (458b), marked by three exclamation marks, ‘???’).

(457) **schema of a factive optative**

a. \([EX_{preferences} [Mood_{FACT} \phi]]!\)

b. **What this entails on part of the speaker:**

I have an emotion towards the desirability of \( p \) Otto came in time].

It is true that \( p \) Otto came in time].

Therefore, I am glad that \( p \) Otto came in time].

(458) **schema of a counterfactual surprise exclamation**

a. \([EX_{unlikelihood} [Mood_{CF} \phi]]!\)

b. **What this entails on part of the speaker:**

I have an emotion towards the surprisingness of \( p \) Otto came in time].

It is false that \( p \) Otto came in time].

Therefore, I am ??? that \( p \) Otto came in time].

To summarize, the puzzle that we face is whether the prototypical combinations of exclamatory scales (i.e. the scales that \( EX \) combines with) and semantic mood should be considered a true fact about language, and if so, how we could possibly derive them under a view that does not render \( EX \) mood-sensitive.
5.2.2 Towards a solution

In order to tackle this problem, we could simply stipulate a solution in which different scales must co-occur with different moods, by virtue of syntactic agreement / selectional restrictions. This is clearly a last resort, as it lacks insight, which is why I will not be addressing it in detail. A sketch of how it would be implemented is given in (459).

(459)a. indicative (and factive) polar exclamatives

\[ \text{LF: } [[\text{EX Scale}_{\text{speaker-unlikelihood}}][\text{iMood}_{\text{FACT}} [p \text{ Otto came in time}]]] \]

b. subjunctive (and counterfactual) optatives

\[ \text{LF: } [[\text{EX Scale}_{\text{speaker-preference}}][\text{iMood}_{\text{CF}} [p \text{ Otto came in time}]]] \]

The question arises whether we can exclude certain scale-mood combinations on more principled grounds – and whether we even need to. Let me first discuss the possibility of counterfactual exclamations of surprise, as sketched in (460), repeated from (458). For completeness’ sake, it is worth also considering the possibility of non-factive non-counterfactual surprise, as given in (461). An immediately evident problem here is that such an expression seems somewhat inconsistent with any conceivable communicative goals. Why would a speaker wish to convey an emotion towards how surprising Otto’s coming in time is (quite generally) if it is established that Otto didn’t come in time, as in (460a); in fact, as shown in (460b), we are hard-pressed to even come up with a felicitous paraphrase. The paraphrase I would be surprised if ... does not capture the meaning of (460a), as EX_{unlikelihood} conveys a current emotion towards the surprisingness of \( \phi \), not a ‘displaced’ emotion. The same logic applies to (461). It is thus plausible that non-factive ‘exclamations of surprise’ are nonsensical from a perspective of communicative goals. It may then well be that EX_{unlikelihood} and Mood_{CF} can combine, but that they simply fail to combine, as there is no reason to do so.
(460) schema of a counterfactual surprise exclamation

a. [EX_{unlikelihood} [Mood_{CF} \phi]]!

b. What this entails on part of the speaker:
   I have an emotion towards the surprisingness of [\text{\textit{p}} Otto came in time].
   It is false that [\text{\textit{p}} Otto came in time].
   Therefore, I am ??? that [\text{\textit{p}} Otto came in time].

(461) schema of a non-factive non-counterfactual surprise exclamation

a. [EX_{unlikelihood} [Mood_{DEF} \phi]]!

b. What this entails on part of the speaker:
   I have an emotion towards the surprisingness of [\text{\textit{p}} Otto came in time].
   It is unresolved whether [\text{\textit{p}} Otto came in time].
   Therefore, I am ??? that [\text{\textit{p}} Otto came in time].

This leads us to the other side of the coin, which is much more difficult to account for. A factive optative would have the communicative effect in (462), repeated from (457).

(462) schema of a factive optative

a. [EX_{preferences} [Mood_{FACT} \phi]]!

b. What this entails on part of the speaker:
   I have an emotion towards the desirability of [\text{\textit{p}} Otto came in time].
   It is true that [\text{\textit{p}} Otto came in time].
   Therefore, I am glad that [\text{\textit{p}} Otto came in time].

As opposed to non-factive exclamations of surprise, nothing is inconsistent about (462). In fact, we can imagine factive expressions of desirability quite easily, as in (463).

(463)a. Phew … John came in time.
   b. Excellent! John came in time.

The question is whether we ever find factive optatives that have the hallmark features of a typical EX utterance in the language they occur in. In German, we have seen that EX
utterances typically take the shape of *if*-clauses, *that*-clauses and *V1*-clauses. Can any of these serve as factive optatives?

As we know that Mood\textsubscript{FACT} is incompatible with *wenn* ‘if’, we need to look at *dass*-exclamations and possibly at *V1*-exclamations. The crucial question may go along the following lines: Does an utterance like (464a) (or a similar utterance) have an optative reading as given in (464c)? (I include the South German generalized interjection *mei* ‘my’, which often correlates with positive or negative evaluation, to make a possible optative reading more salient.)

(464)a. Mei, dass es jetzt DOCH geregnet hat!
    my that it doch indeed rained has
    *lit.* ‘My, that it rained after all!’

b. *polar exclamative reading:* ‘[I’m surprised] that it rained after all!’

c. *intended optative reading:* ‘[I’m glad] that it rained after all!’

Certainly, (464a) can be paired with an expression of approval, (465a), but it can just as well be combined with an expression of disapproval, (465b). The most natural view on (465a+b) is that the *dass*-exclamation simply expresses surprise without evaluation.

(465)a. Mei, dass es jetzt DOCH geregnet hat! Das ist aber *schön*!
    my that it doch indeed rained has that is but beautiful
    *lit.* ‘My, that it rained after all! That’s really nice!’

b. Mei, dass es jetzt DOCH geregnet hat! Das ist aber *blöd*!
    my that it doch indeed rained has that is but stupid
    *lit.* ‘My, that it rained after all! That’s really bad!’

So, can we construct any examples of this type that express positive evaluation and do not express surprise? As it stands, it is not clear that such constructions exist, so we cannot easily explain away the observed gap in the paradigm of *EX\textsubscript{S}-Mood* combinations (i.e. the non-existence of factive optatives). It is useful to point out that this is not a distinguished problem for my account, but a more general problem that arises whenever we are dealing with root clauses that have the structure of unembedded clauses. For
instance, a matrix clause deletion approach falls short of explaining the non-existence of *I’m glad* exclamations just as much as the EX-Operator account does, as illustrated in (466).

(466)*predicted by a matrix-clause deletion approach*

> Mei, *ich bin* froh dass es jetzt DOCH geregnet hat!

> my I am glad that it doch indeed rained has

> *lit. ‘My, [I’m glad] that it rained after all!’*

Before moving on, it is worth noting a consequence of my proposal in chapter 6.3 below; I suggest in chapter 6.3 that exclamations with concessive *wenigstens* ‘at least’ may be restricted to using a preference scale, i.e. *wenigstens* ‘at least’ may block a non-optative reading and require an optative reading. In this sense, the V1-clauses in (467) (preceded by the interjection *mei* ‘my’) may be instances of factive optatives.

(467)a. *Jo* *mei, hast* du *wenigstens* gleich gesehen wie man bequem

> well my have you at.least at.once seen how one comfortably

> einen Spannungsteiler baut.

> a voltage.divider builds

> ‘Well, my, at least you learned at once how to comfortably build a voltage divider.’

(467)b. aber *mei, hat* er *wenigstens* löten geübt

> but my has he at.least to.solder practiced

> ‘But, my, at least he practiced soldering!’

(468)The following constructed (V1-)example shows that such utterances may imply desirability of the denoted proposition, as indicated in (468d), without implying its surprisingness, as shown in (468c). So, these utterances may be true examples of factive optatives.
(468) a. A: Die Hochzeit gestern war so fad.
   the wedding yesterday was so boring
   ‘The wedding yesterday was so boring.’

   b. B: Jo **mei, hast du wenigstens** den Bruder vom Otto kennengelernt!
   yes my have you at.least the brother of Otto met
   ‘Well, [it’s good that] at least you met the brother of Otto’s!’

   c. B: … also war’s eh genau so, wie wir’s uns erwartet hatten.
   so was’it just so as we’it us expected had
   ‘So it was exactly the way we expected.’

   d.#B: … was natürlich auch schlecht war.
   which naturally also bad was
   ‘Which was naturally also bad.’

Notably, the evidence may be slightly inconclusive, as there are many open questions\(^{94}\).

Therefore, let us now take a different perspective, and look at exclamations that express disapproval (which I dubbed *adversatives* in chapter 2). Maintaining a uniform EX-operator analysis to exclamations, it is plausible that (469) is an utterance that contains an EX-operator, combining with an inverse preference scale (i.e. a scale that models undesirability with respect to the speaker: the higher on the scale, the more undesirable). By virtue of EX, the speaker of (469) conveys that the hearer’s being careless exceeds a salient threshold on a scale that represents inverse desirability, i.e. the hearer’s being careless is *undesirable*.

(469) Dass du **aber auch** so leichtsinnig bist!
   that you but also so careless are
   ‘[It’s bad] That you are so careless!’

   (Scholz 1991:47,fn.89, who attributes this example to Oppenrieder 1989)

What is important is that such adversatives can typically be factive (though they may also be non-factive, plausibly combining with Mood\(^{\text{DEF}}\), given that the complementizer wenn ‘if’ was licensed in adversatives, as we have seen in chapter 2).

\(^{94}\) For instance, the purported factive optatives in (467) and (468) do not seem to have *dass*-variants.
Reconsider Villalta’s picnic scenario, from (343), repeated in (470). If Victoria is standing with a close friend when Sofia arrives, it seems perfectly felicitous for her to utter the adversative in (471), after they have both acknowledged that Sofia has brought vanilla ice cream again. In such a context, Mood$_{\text{FACT}}$ should (at least) be licensed.

(470) a. *Sofia may bring a chocolate cake, apple pie or ice cream to Victoria’s picnic. It is extremely unlikely that Sofia brings chocolate cake, whereas it is most likely that she brings ice cream and somewhat less likely that she brings apple pie. Victoria prefers the chocolate cake to the apple pie by far, and she hates ice cream.*

b. preferences beliefs

<table>
<thead>
<tr>
<th>most desirable</th>
<th>— chocolate cake</th>
<th>most unlikely / least likely</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>— apple pie</td>
<td></td>
</tr>
<tr>
<td>least desirable</td>
<td>— ice cream</td>
<td>most likely / least unlikely</td>
</tr>
</tbody>
</table>

(adapted from Villalta 2007:102+103)

(471) Dass die **aber auch** immer Vanilleei **mitbringt**!

*that she but also always vanilla.ice.cream brings*

‘[I find it bad/disappointing] that she always brings vanilla ice cream!’

The view that (471) merely expresses disapproval (without a surprise component) is supported by the fact that it would seem odd for Victoria to express surprise in (470), as indicated in (472). A view that treats (471) as an adversative expression of unsurprised disapproval is also corroborated by the presence of the particles **aber auch** ‘but also’, which are prototypical of such disapproval exclamations, see Scholz (1991).

(472) *In the context described by (470) after Sofia has showed up with ice cream.*

a.# I’m surprised that she brought ice cream (again).

b.# I’m surprised that she’s always bringing ice cream.
The fact that constructions like (471) are factive (and thus plausibly contains \( \text{Mood}_{\text{FACT}} \)) follows from the observation that the modified proposition cannot be called into question. In the adversative (473a), it is impossible to follow up by saying “which isn’t certain yet”, whereas this is perfectly fine in an optative like (473b) (though it may be slightly unnatural, as the non-certainty of the optative proposition may already follow as an implicature from uttering an optative).

(473)a. Dass die jetzt **aber auch** wieder Vanilleeis mitbringt! – # Was that she now but also again vanilla.ice.cream brings what natürlich noch nicht sicher ist. naturally still not certain is ‘[I find it bad/disappointing] that she brings vanilla ice cream again! – # which is, of course, not certain yet.’

b. Dass die jetzt **nur** wieder Vanilleeis mitbringt! – ✔ Was natürlich that she now only again vanilla.ice.cream brings what naturally noch nicht sicher ist. still not certain is ‘[I hope] that she brings vanilla ice cream again! – ✔ which is, of course, not certain yet.’

This slightly changes the picture of which \( \text{EX} \) - Mood combinations are possible. If we assume that optatives and adversatives use the same scale (a preference scale) with opposite polarity, we find that preference scales and inverse preference scales are in a partially complementary distribution with respect to their prototypical mood. Specifically, positive evaluation seems to be tied to non-factivity, and negative evaluation seems to be tied to non-counterfactuality. In the cases of default mood, both may be possible. Scholz (1991) discusses several cases of \( \text{wenn} \)-adversatives, which, given our insights from section 5.1, should be non-factive (as \( \text{wenn} \) ‘if, when’ is incompatible with \( \text{Mood}_{\text{FACT}} \)). We can thus establish the revised correlation in (474).
This begs the question of whether we find counterfactual polar exclamatives as well, if the relevant scale is a *likelihood* scale (rather than an *unlikelihood* scale). Recall that counterfactual polar exclamatives were the other unattested combination type. I propose that we do. A relevant candidate is example (475), which conveys that the opposite of the expressed (negative) proposition is the case, and which further conveys that the facts are surprising.

(475)a. Mensch, wenn das da drüben **nicht** der Otto ist!  
  man if this there over not the Otto is  
  *lit.* ‘Man, if this is not Otto over there!’

  b. *perceived meaning:* ‘Man, [I’m surprised] that this is Otto over there!’

  c. *not:* ‘Man, [I’m surprised] that this is **not** Otto over there!’

I suggest that we should explore the idea of whether (475) may involve a likelihood scale in combination with counterfactual semantic mood (in spite of its indicative m-mood marking); this is schematized in (476).

(476) *schema of a if-not-exclamation*

  a. [EX_{likelihood}[Mood_{CF} φ]]!

  b. **What this entails on part of the speaker:**

    I have an emotion towards the high expectability of [p Otto is not over there].

    It is false that [p Otto is not over there]. \( \Rightarrow \) It is true that [p Otto is over there].

    Therefore, I am surprised that [p Otto is over there].

---

95 See also Quirk et al. (1985) for corresponding English examples, illustrated in (i) and (ii).

i. Well, if it isn’t the manager himself! ["It is indeed the manager himself!"]

ii. Why, if it isn’t Susan! ["It is indeed Susan!"]

(Quirk et al. 1985:842)
If the analysis in (476) is on the right track, a revised correlation of EX scales and mood can be given as in (477).

(477) | mood                          | preference                     | likelihood     |
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<tbody>
<tr>
<td>factive</td>
<td>dispreference for φ</td>
<td>φ is unlikely</td>
<td></td>
</tr>
<tr>
<td>non-factive non-counterfactual</td>
<td>(dis)preference for φ</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>counterfactual</td>
<td>preference for φ</td>
<td>φ is likely</td>
<td></td>
</tr>
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</table>

A tentative conclusion may then be that negatively oriented scales (conveying the violation of an expectation or preference) preferably combine with factive mood, whereas positively oriented scales (conveying the satisfaction of an expectation or preference) combine with counterfactual mood (or possibly with non-factive non-counterfactual mood). I conjecture that this correlation may reflect a constraint on exclamations that we tend to exclamatively express an emotion towards a certain proposition if the facts do not comply with certain ideals or beliefs states (i.e. how things should be according to our desires and beliefs). If things are the way they should be (according to our desires and beliefs), exclamations that employ EX may simply not be warranted.

### 5.3 Mood, Exclamations and the Connection to Verb Second

In sections 5.1 and 5.2, I have formulated a proposal for the role that semantic mood plays in exclamations, both in co-determining which complementizer is selected / whether V1 order is possible and in giving rise to the presuppositions typically associated with an expression of surprise, hope or wishfulness. The purpose of this section is to integrate this proposal into the larger literature and show how it is compatible with other views. Most discussions of morphological mood, semantic mood and mood-related issues (such as the Greek factive complementizer *pu* ‘that’, cf. Roussou 1994, Varlokosta 1994) focus on embedded clauses, cf. Portner (1997), Giannakidou (1999, 2009), Quer (1998, 2001, 2009ab), Roussou (2009, 2010), Giorgi (2009), Giannakidou (2009), Kempchinsky (2009), Siegel (2009). Unembedded clauses are often covered by side-remarks. A link
between mood and V1 / V2 such as the one that I proposed has only be suggested recently, in Portner’s (2006) response to Truckenbrodt’s (2006ab) discussion of embedded verb second. Most of this section is dedicated to a discussion of how Truckenbrodt’s insights can be translated into my system. I will then briefly review the difference between V1 and V2.

5.3.1 Truckenbrodt (2006ab) and Mood Management

Truckenbrodt (2006ab) proposes that (V-to-)Infl-to-C movement (i.e. V1 and V2) in German is always connected to (illocutionary) force-related features in C. His force-related features are the predecessors of my Mood features. From his perspective, they serve to co-determine illocutionary force potential by means of the presuppositions that they trigger. I refer to the main paper (Truckenbrodt 2006a) and the response to the commentators (Truckenbrodt 2006b) separately as Truckenbrodt revises relevant parts of his theory. Truckenbrodt (2006a) characterizes the features in C as context indices, one of which is labeled Epist. Epist is the one that also occurs in embedded clauses; it requires that the expressed proposition is interpreted relative to some belief context E of some individual x in a world w, abbreviated as E^w(x). Truckenbrodt (2006b) by and large eliminates the other context indices and reanalyzes Epist as a [±WH] feature with a similar semantic impact. The impact of [±WH] is given in (478); [±WH] is seen to typically trigger (V-to-)Infl-to-C movement. Truckenbrodt considers the epistemic interpretation principle the main result of his investigation.

(478) Epistemic interpretation of [±WH]

A visible specification of [±WH] in C or SpecCP at LF triggers a presupposition that looks for an epistemic context. The proposition p is embedded in that epistemic context.

(Truckenbrodt 2006b:395)

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96 As I take a different approach to unembedded dass-clauses and wenn-clauses, I will not review Truckenbrodt’s view on such utterances (see Reis 2006 for some relevant criticism of applying Truckenbrodt’s theory to wenn-clauses).
Rendered in my own approach to mood, we can view this epistemic feature as proto-assertive mood, which amounts to a presupposition that somebody believes, assumes, dreams, … that the modified proposition is true. Let us define proto-assertivity as in (479).

\[
\text{iMood}_{\text{assert}}^c = \lambda p . \lambda w : E_c(w) \subseteq p . p(w) \tag{479} \quad \text{PROTO-ASSERTIVITY}^{97}
\]

“It is presupposed that there is a salient epistemic context \(E_c\) (i.e. somebody’s beliefs, assumptions, dreams, …), which embeds \(p\).”

Where can we see \(i\text{Mood}_{\text{assert}}\) at work? Following Truckenbrodt, it is plausible that the presence of \(i\text{Mood}_{\text{assert}}\) always requires (V-to-)T-to-C movement, i.e. in my rendering both C and Mood would have the EPP property. (Truckenbrodt 2006b assumes that V1 / V2 is triggered by a PF visibility requirement that requires [±WH] to associate with overt material at PF.)

Truckenbrodt (2006b), whose main objective is to derive the connection between illocutionary force and V1 / V2, posits the root rule in (480) (developed from Zaefferer 2001), which essentially encodes purposefulness and maps an utterance into a speech act. (Deonts, which is modeled as a context index in Truckenbrodt 2006a, roughly translates to ‘the speaker wants’.)

\[
\text{Root Rule}
\]

Utterances (more generally: communicative acts) are interpreted as purposeful, i.e. expressing a volition on the part of the speaker: \(\text{CG} \rightarrow \text{CG + “Deonts” (…)}\). In the cases discussed here, the meaning of the utterance is interpreted in the scope of this volition, i.e. as part of “…” in the preceding formula.

(Truckenbrodt 2006b:394)

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97 As Portner (2006) points out, Truckenbrodt’s epistemic contexts correspond to Giannakidou’s (1999) models (e.g. M\text{DREAMS}(jacob), the set of worlds compatible with Jacob’s dreams) and Portner’s (1997) modal contexts (e.g. DoxMaggie\(w\) = the set of worlds compatible with Maggie’s beliefs in \(w\)). This correspondence holds for my mood features as well.
We can now give an illustration of Truckenbrodt’s system, for a declarative assertion, in (481). He assumes that a clause like (481a) has the feature [–WH] in C, which triggers V2 movement; the expressed proposition is given in (481b). By virtue of (478), this proposition is embedded in an epistemic context, given in (481c); the root rule in (480) then triggers the update of the common ground by means of the embedded proposition, as in (481d).

(481) a. Es [–WH]regnet. ‘It is raining.’
   b. \( \lambda w. \text{rain}(w) \)
   c. \textit{by Epistemic interpretation of} [±WH]
      for some \( x, E \) in the context:
      \( \lambda a \ E^a(x) \subseteq \lambda w. \text{rain}(w) \)
      ‘S / A / … believes / knows / assumes … that it is raining.’
   d. \textit{by Root Rule}
      \( \text{CG} \to \text{CG} + \lambda w.’ \text{Deont}^w_s(\lambda a \ E^a(x) \subseteq \lambda w. \text{rain}(w)) \)
      ‘S wants common ground [that it is raining].’
      or also: ‘S wants that A know [that S believes that it is raining].’

For interrogatives, Truckenbrodt (2006b) assumes that they invoke the epistemic interpretation rule twice; they have a [±WH] feature associated with a question operator, and a [–WH] feature associated with C (developing an idea from Brandt et al. 1992:31f)).

(482) \textit{V-to-C} interrogatives
   a. \( \text{SpecCP} \ [±WH] \text{Wen} \ [C’} \ [–WH] \text{mag} \ [TP} \text{Maria t}\text{mag}?]] \)
      ‘Whom does Maria like?’
   b. \( \text{SpecCP} \ [±WH] \text{Mag} \ [TP} \text{Maria Peter}?]] \)
      ‘Does Maria like Peter?’
      (Truckenbrodt 2006b:398)

Both [±WH] and [–WH] simply trigger the search for an epistemic context. As a consequence of a pragmatic strategy of construing a coherent speech act, [±WH] is oriented towards the speaker (conveying that the speaker wants the true answer to
become part of the speaker’s knowledge) and [–WH] towards the hearer (triggering the presupposition that the hearer knows the true answer).

Given the scope and focus of my dissertation, I am mainly interested in the idea that iMood\textsubscript{ASSERT} is the relevant mood both in assertions and in questions. In order to derive the right pragmatic effect, it seems appropriate to assume (in Truckenbrodt’s 2006ab spirit) that iMood\textsubscript{ASSERT} always contributes the same presupposition, but the effect varies according to the utterance type. The contribution of iMood\textsubscript{ASSERT} is always that the modified proposition is embedded in some epistemic state. In declaratives, this epistemic state is by default oriented towards the speaker. In interrogatives, this epistemic state is by default oriented towards the hearer. Such a view is suggested by Zaefferer (2006), as in (483).

\begin{equation}
\text{(483) Content-type drivenness of the question-assertion distinction}
\end{equation}

The difference in structural meaning between declarative and interrogative sentences is the difference between different kinds of propositional content.

(\textit{Zaefferer 2006:345})

I assume with Truckenbrodt (2006ab) that questions denote the true answer, i.e. a proposition (Groenendijk & Stokhof 1982)\textsuperscript{98}. We can then give an analysis of assertions and questions as in (484) and (485) respectively, assuming my iMood\textsubscript{ASSERT} feature. Hearer/speaker orientation follows from the pragmatics of assertions and questions, cf. (483). It can be viewed as a precondition that an assertion is only felicitous if the speaker believes the truth of the asserted proposition; similarly, we will shortly review evidence that questions trigger a presupposition that someone (typically the hearer) knows the true answer. As shown in (484), a declarative assertion offers the denoted proposition, (484b), coupled with a presupposition that the speaker believes it to be true (a precondition for assertion), (484d).

\textsuperscript{98} For background on question semantics see also Hamblin (1973), Karttunen (1977), Hintikka (1974), Bäuerle & Zimmermann (1991) and Groenendijk & Stokhof (1997).
(484)  a.  \[[CP \text{ Es } [C' \text{ regnet}_{	ext{iMood:ASSERT}}] [TP \text{ tes } [VP \text{ tregnet}]]].

   it rains
   ‘It is raining.’

  b.  \textit{truth-conditional meaning:}  \(\lambda w. \text{rain}(w)\)

  c.  \(iMood_{\text{ASSERT}} \Rightarrow \) There is a contextually salient epistemic context \(E_c\), such that, \(E_c(w) \subseteq p\)

d.  \textit{via} (483):  \(E_c\) is identified with \(\text{Epist}_{\text{speaker(c)}} \Rightarrow \text{Epist}_{\text{speaker(c)}}(w) \subseteq p\)

Similarly, as shown in (485), when a speaker utters a question, she prompts the hearer to provide the true answer, (485b), and triggers a presupposition that the hearer knows the true answer, (485d).

(485)  a.  \[[CP \text{ Q } [C' \text{ regnet}_{	ext{iMood:ASSERT}}] [TP \text{ es } [VP \text{ tregnet}]]]?\rains

   ‘Is it raining?’

  b.  \textit{truth-conditional meaning:}  \(\lambda w. \text{rain}(w) = \text{rain}(w^*)\)

  c.  \(iMood_{\text{ASSERT}} \Rightarrow \) There is a contextually salient epistemic context \(E_c\), such that, \(E_c(w) \subseteq p\)

d.  \textit{via} (483):  \(E_c\) is identified with \(\text{Dox}_{\text{hearer(c)}} \Rightarrow \text{Dox}_{\text{hearer(c)}}(w) \subseteq p\)

For declaratives, the presupposition in (484d) can be motivated as it is plausible to assume that belief in a proposition is a pre-condition for asserting it. For V-to-C questions, Truckenbrodt (2006a) presents an empirical argument that a presupposition like (485d) is triggered. Truckenbrodt (2006a) observes that unembedded \textit{ob}-questions do not expect knowledge on part of the hearer, (486), whereas V1-questions do, (487)99. This follows if V-to-C movement in questions triggers the presupposition that the hearer knows the true answer.

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99 While rhetorical questions, pedagogical questions, monological questions and exam questions may, strictly speaking, diverge from this requirement, Truckenbrodt points out that they can still be considered to involve some expectation for an addressee (real or implicit) to make the right answer common ground. What is crucial here is that prototypical questions do encode the presupposition that the hearer is capable of providing an answer.
(486) Stefan: Ich hab seit Jahren nichts mehr von Peter gehört. ‘I haven’t heard from Peter in years.’

Heiner: Ich auch nicht. ‘Me neither.’

Stefan: Ob er immer noch kubanische Zigarren mag? whether he always still Cuban cigars likes ‘[I wonder] if he still likes Cuban cigars?’

(Truckenbrodt 2006a:274)

(487) Stefan: Ich hab seit Jahren nichts mehr von Peter gehört. ‘I haven’t heard from Peter in years.’

Heiner: Ich auch nicht. ‘Me neither.’

Stefan: # Mag er immer noch kubanische Zigarren t_m_? likes he always still Cuban cigars ‘Does he still like Cuban cigars?’

(Truckenbrodt 2006a:274)

Moving on to embedded mood, one of the core contrasts is given in (488) versus (489). Truckenbrodt (2006ab) takes Epist / [±WH] (my iMood_{ASSERT}) to be responsible for the possibility of embedded V2 in (488) and the impossibility thereof in (489)\(^\text{100}\). The idea is that embedded epistemic features (or mood features from my perspective) cannot project to the speaker – they have to be evaluated with respect to the matrix subject (possibly by context shifting or binding of an attitude holder variable; Truckenbrodt views the embedded clause as a derived context in the sense of Stalnaker 1988). As a consequence, embedded [iMood_{ASSERT}] in (488a)+(489a) requires that the matrix subject (Hans) believes / knows / assumes / … that Peter comes to late. As this is the case in (488a), iMood_{ASSERT} is licensed, whereas in (489a), iMood_{ASSERT} is not licensed. As a consequence, it is plausible that (488b)+(489b) contains iMood_{DEF} which is vacuous and thus always possible in embedded clauses.

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\(^{100}\) The idea that Truckenbrodt (2006ab) is based on is the idea that embedded V2 is connected to proto-assertive force, e.g. Gärtner (2002).
While in complement clauses the choice between iMood\textsubscript{ASSERT} and iMood\textsubscript{DEF} seems largely optional, we observe that assertional matrix clauses require iMood\textsubscript{ASSERT}, which in turn seems to require (V-to-)T-to-C movement (i.e. both C and Mood must have the EPP property). This may be important due to a maxim such as Heim’s (1991) *Maximize Presupposition* – in order to assert something the speaker has to believe it to be true, which may have to be marked by means of iMood\textsubscript{ASSERT}.

Similarly, an information question always requires the speaker to use iMood\textsubscript{ASSERT} as well, as shown in (491). We can understand this on analogy. If a speaker asks a direct question, she typically has reasons to believe that the hearer knows the answer, which must be marked accordingly.
(491) a. Gehst du nach Hause?
go you to home
‘Are you going home?’
b. Ob du nach Hause gehst?
whether you to home go
intended: ‘Are you going home?’

The fact that embedded mood has to be interpreted with respect to the matrix subject and does not project to the utterance context is supported by observations on embedded counterfactual mood and embedded factive mood. It is plausible that (492b) contains an embedded iMood$_{ CF }$, which has an overt reflex in the presence of subjunctive m-mood (wäre ‘were’) and in the possibility of embedded verb second$^{101}$. Yet, it is not the case that the speaker believes in the falsity of Maria came. (See also Abels 2010 for the idea that the factivity presupposition of embedded degree exclamatives does not project – with the caveat that these clauses may not be embedded exclamatives after all, cf. chapter 4.)

(492)a. Hans glaubt, fälschlicherweise, dass Maria nicht gekommen ist.
Hans believes falsely that Maria not arrived is
‘Hans mistakenly believes that Maria hasn’t arrived.’
b. Er wünscht, sie wäre gekommen.
he wishes she were come
‘He wishes that she had come.’

Simply by assuming iMood$_{ ASSERT }$, which can occur in embedded clauses and must then be satisfied with respect to the derived context, we can derive the contrast between the examples in (493), which all activate epistemic states that have the matrix subject as attitude holder, and (494), where this is not the case.

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$^{101}$ This observation may necessitate a modification of iMood$_{ CF }$ as follows.
i. $\langle $\text{Mood}$_{ CF }$$\rangle = \lambda p \cdot \lambda w : p \cap E_c (w) = \emptyset \cdot p(w)$
   “Somebody believes / assumes / dreams … p to be false.”

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In the same way in which Portner (1997) assumes that mood selection reflects the modal context with respect to which an embedded clause is interpreted (e.g. Maria’s...)

dreams, Maria’s beliefs, etc.), it can be assumed that the types of semantic mood features that I assume need to be licensed with respect to such modal contexts. Concluding this section, it is worth briefly discussing parallels that we expect to see in the behavior of embedded V2 and in m-mood marking on embedded predicates. One thing that has been observed for embedded m-mood is that it is not strictly sensitive to the meaning of the matrix predicate, but rather to the compositional meaning of the matrix clause. Therefore, negation affects mood marking in embedded clauses. Quer (2001) notes that (495a) and (495b) differ in that creu ‘believes’ in (495a) triggers embedded indicative, whereas no creu ‘doesn’t believe’ in (495b) triggers embedded subjunctive (provided that the embedded mood is interpreted with respect to the epistemic models $M_E(\text{Anna}) / M_E(\text{jury})$, which have the matrix subject as attitude holder).

(495)a. L’Anna creu [que els pingüins volen]$_{M_E(\text{Anna})}$
the-Anna believe.3SG that the penguins fly.$\text{IND.3PL}$
‘Anna believes that penguins fly.’
(Quer 2001:85)

(495)b. El jurat no creu [que sigui innocent]$_{M_E(\text{jury})}$
the jury not believe.3SG that be.$\text{SUB.3SG}$ innocent
‘The jury doesn’t believe that s/he’s innocent.’
(Quer 2001:91)

Embedded indicative under negated creu ‘believes’ is only possible if the embedded mood is interpreted with respect to the speaker’s beliefs, i.e. the epistemic model $M_E(\text{speaker})$, (496).

(496) El jurat no creu [que és innocent]$_{M_E(\text{speaker})}$
the jury not believe.3SG that be.$\text{IND.3SG}$ innocent
‘The jury doesn’t believe that s/he’s innocent.’
(Quer 2001:91)

Quer (1998, 2001) argues that (496) presupposes the truth of the complement proposition, whereas (495a) conveys it in an assertive way. In my system, this distinction can be
captured if we posit lexically speaker-oriented $i\text{Mood}_\text{FACT}$ in (496), but context-sensitive $i\text{Mood}_\text{ASSERT}$ in (495a).\footnote{This is an over-simplification; Quer (1998) shows that the factive presupposition associated with the indicative in (496) does not project to the actual speaker in the case of multiple embedding – in such cases, it projects to the next higher subject. See also Quer (2001:92,fn.1) for the observation that sometimes embedded indicative is possible in a first person statement of ‘I don’t believe that $p$’; in such cases, the truth of the complement must be presupposed by some other agent in the discourse.}

\begin{equation}
(497)a. \quad \|i\text{Mood}_\text{FACT}\|^c = \lambda p . \lambda w : \text{Dox}_{\text{speaker}}(w) \subseteq p \cdot p(w) \quad \text{FACTIVITY}
\end{equation}

“The speaker presupposes $p$ to be true.”

\begin{equation}
(497)b. \quad \|i\text{Mood}_\text{ASSERT}\|^c = \lambda p . \lambda w : E_c(w) \subseteq p \cdot p(w) \quad \text{PROTO-ASSERTIVITY}
\end{equation}

“It is presupposed that there is a salient epistemic context $E_c$ (i.e. somebody’s beliefs, assumptions, dreams, …), which embeds $p$.”

Given that $i\text{Mood}_\text{ASSERT}$ must be locally licensed, it is possible in (495a), where the relevant epistemic context is entailed by the matrix clause, but not in (495b), where the epistemic context in the matrix clause does not entail the truth of the complement proposition. In contrast, $i\text{Mood}_\text{FACT}$ projects, which is why it is possible in (496).

The same sensitivity of $i\text{Mood}_\text{ASSERT}$ to its local context is observed in Truckenbrodt (2006a) (who calls it Epist). The examples in (498) and (499) (based on Truckenbrodt 2006a:295-297) show that glaubt ‘believes’ is compatible with embedded dass ‘that’ or V2, whereas glaubt nicht ‘doesn’t believe’ is restricted to dass ‘that’ and disallows V2.

\begin{enumerate}
\item (498)a. Hans glaubt, dass Peter geht nach Hause geht. 
Hans believes that Peter goes to home goes
‘Hans believes that Peter goes home.’

\item (498)b. Hans glaubt nicht, dass Peter geht nach Hause geht. 
Hans believes not that Peter goes to home goes
‘Hans believes that Peter goes home.’
\end{enumerate}

\begin{enumerate}
\item (499)a. Hans glaubt, Peter geht nach Hause. 
Hans believes Peter goes to home
‘Hans believes that Peter goes home.’
\end{enumerate}
b.* Hans glaubt nicht, Peter *geht* nach Hause.
Hans believes not Peter goes to home
‘Hans believes that Peter goes home.’

This follows if the embedded clause in (498) contains iMood$_{DEF}$ marking and the embedded clause in (499) contains iMood$_{ASSERT}$ marking, which must be satisfied within the local context (Hans’s epistemic model $M_E(Hans)$). In (500b), Hans’s beliefs do not embed the proposition that Peter is going home, which is why iMood$_{ASSERT}$ (the trigger for embedded V2) is not licensed in its local context. In (500a), such licensing is given.

(500)a. Hans glaubt, [Peter *geht* nach Hause]$M_E(Hans)$
Hans believes Peter goes to home
‘Hans believes that Peter goes home.’

b.* Hans glaubt nicht, [Peter *geht* nach Hause]$M_E(Hans)$
Hans believes not Peter goes to home
‘Hans believes that Peter goes home.’

The current proposal thus derives the similarities between complementizer selection / verb movement on the one hand and mood selection on the other hand. Both are ultimately due to semantic mood features – presupposition triggers that sometimes must be satisfied in a local context and sometimes project. I will now conclude this chapter with a brief discussion of the difference between verb first and verb second in German.

5.3.2 V1 and V2

This section briefly addresses the following two issues. On the one hand it appears that German exclamations with (V-to-)T-to-C movement are typically verb-initial, (501), while assertional declaratives have verb-second order, (502).

(501)a. Hätte es doch nur tatsächlich geregnet!  optative
had it doch only indeed rained
‘If only it had rained indeed!’
b. **hat** es jetzt doch tatsächlich geregnet!  
*polar exclamative*

has it now doch indeed rained
‘[I’m surprised] that it rained after all!’

(502)a. Es **hat** geregnet.  
/ * **Hat** es geregnet.  
*indicative declarative*

it has rained  
‘It rained.’

b. Es **hätte** geregnet.  
/ # **Häte** es geregnet.  
*subjunctive declarative*

it had rained  
‘It would have rained.’

On the other hand, the mood-based analysis that I proposed for complementizer selection
/T-to-C movement does not derive the obligatory presence or absence of XP-to-SpecCP
movement, which typically gives rise to verb second order, yet cannot occur in the
presence of an ‘complementizer’ such as *wenn* ‘if’ or *dass* ‘that’. As shown in (503) and
(504), verb fronting is quite generally accompanied by XP-to-SpecCP movement (here: *weather es* ‘it’), even in complement clauses (though not in conditional antecedents).

(503)a.* Hans glaubt, [CP **hat** [TP es geregnet t_{hat}]].
Hans believes has it rained
‘Hans believes that it rained.’

b. Hans glaubt, [CP es [C: **hat** [TP t_{es} geregnet t_{hat}]].
Hans believes it has rained
‘Hans believes that it rained.’

(504)a.* Hans wünscht, [CP **hätte** [TP es geregnet t_{hätte}]].
Hans wishes had it rained
‘Hans wishes it had rained.’

b. Hans wünscht, [CP es [C: **hätte** [TP t_{es} geregnet t_{hätte}]].
Hans wishes it had rained
‘Hans wishes it had rained.’

By contrast, *dass*-clauses, as in (505), and *wenn*-clauses, as in (506), disallow XP-to-
SpecCP movement.
(505)a. Hans glaubt, \([_{CP} \text{ dass }_{TP \text{ es geregnet hat}}]\].
Hans believes that it rained has
‘Hans believes that it rained.’

b.* Hans glaubt, \([_{CP \text{ es }_{CP} \text{ dass }_{TP \text{ t_{es} geregnet hat}}]}\].
Hans believes it that rained has
‘Hans believes that it rained.’

(506)a. Es wäre schön, \([_{CP \text{ wenn }_{TP \text{ es geregnet hätte}}]}\].
it were nice if it rained had
‘It would be nice if it had rained.’

b.* Es wäre schön, \([_{CP \text{ es }_{CP \text{ wenn }_{TP \text{ t_{es} geregnet hätte}}]}]}\].
it were nice it if rained had
‘It would be nice if it had rained.’

It is worth pausing for a moment here and considering an insight from the verb second
literature, as summarized by Holmberg (2010): Verb second consists of two processes, a
process of \((V \text{-} \text{to} \text{-} T \text{-} \text{to} \text{-} C)\) movement and a process of filling the specifier of CP, either by
virtue of XP-to-SpecCP movement or via base generation of an adverb or expletive
element. While T-to-C movement and filling of SpecCP tend to co-occur, as in embedded
V2 clauses and in matrix declaratives, there is no reason to assume any deeper functional
connection between the two phenomena. In fact, there is much evidence that German XP-
to-SpecCP movement is far from a homogeneous, uniform process (see Frey 2010 for a
recent discussion). By and large, there seems to be a requirement for SpecCP to be filled
in clauses that have a finite verb in C, but there is much variation in what can fill SpecCP.
So, how can we account for this effect, and how can we derive the V1-V2 distinction?

Reconsider the system that I proposed above in order to derive the distribution of \text{dass}
‘that’, \text{wenn} ‘if’ and V1 in German. As shown in (507a), \text{dass} ‘that’ emerges whenever C
lacks the EPP property (in which case Mood usually has the EPP property, plausibly in
order to avoid auxiliary proliferation). Contrastively, as given in (507b), \text{wenn} ‘if’ is the
consequence of moving Mood to C on its own (i.e. C has the EPP property, but Mood
does not). Finally, as given in (507c), T-to-C movement emerges whenever both C and
Mood have the EPP property. It is (507c) where we typically find the requirement to fill
the specifier of CP, whereas (507a+b) disallow this.
(507)a.  \( C_{[uMood, -EPP]} \ldots \text{Mood}_{[\text{Mood}, uT, +EPP]} \ldots T_{[IT]} \)
\[ \Rightarrow \ C_{[\text{✖Mood}]} \ldots T_{[IT]} + \text{Mood}_{[\text{Mood}, uT]} \ldots \langle T_{[IT]} \rangle \]
spelling-out: \( C_{[\text{✖Mood}]} \Leftrightarrow \text{dass} \ ‘\text{that}’ \)

b.  \( C_{[uMood, +EPP]} \ldots \text{Mood}_{[\text{Mood}, uT, -EPP]} \ldots T_{[IT]} \)
\[ \Rightarrow \ \text{Mood}_{[\text{Mood}, uT]} + C_{[\text{✖Mood}]} \ldots \langle \text{Mood}_{[\text{Mood}, uT]} \rangle \ldots T_{[IT]} \]
spelling-out: \( \text{Mood}_{[\text{Mood}, uT]} + C_{[\text{✖Mood}]} \Leftrightarrow \text{wenn} \ ‘\text{if}’ \)

c.  \( C_{[uMood, +EPP]} \ldots \text{Mood}_{[\text{Mood}, uT, +EPP]} \ldots T_{[IT]} \)
\[ \Rightarrow \ C_{[uMood, +EPP]} \ldots T_{[IT]} + \text{Mood}_{[\text{Mood}, uT]} \ldots \langle T_{[IT]} \rangle \]
\[ \Rightarrow \ [T_{[IT]} + \text{Mood}_{[\text{Mood}, uT]}] + C_{[\text{✖Mood}]} \ldots \langle T_{[IT]} + \text{Mood}_{[\text{Mood}, uT]} \rangle \ldots \langle T_{[IT]} \rangle \]
spelling-out: \( [T_{[IT]} + \text{Mood}_{[\text{Mood}, uT]}] + C_{[\text{✖Mood}]} \Leftrightarrow \text{V1 / V2} \)

In light of the system proposed here, the most plausible view is one where it is precisely the fact that both \( C \) and Mood have the EPP property that gives rise to a requirement for SpecCP to be filled. As it stands, it is unclear how this comes about, but whatever eventually accounts for the EPP property may give us a means to derive said requirement from accumulating two EPP-bearing heads by means of head movement.

So, how do we account for the V1 versus V2 distinction? I propose for German exclamations and conditional antecedents that V1 is a consequence from T-to-C movement in a clause where the SpecCP position is occupied by a null operator, as given in (508). This null operator may correspond to the \( EX \) operator in the case of optatives and to the null conditional modal in the case of conditional clauses\(^{104}\). Such a view allows us to account for V1 in conditionals and exclamations, as in (508).

(508)  a.  \([\text{SpecCP EX}_S \ [C \ Wärest \ [TP \ du \ doch \ zuhause]]]! \)
\[ \quad \text{were \ you \ doch \ at.home} \]
\[ \quad \text{‘Were you only at home!’} \]

b.  \([\text{SpecCP \ ∀} \ [C \ Wärest \ [TP \ zuhause]], \ \text{würde ich vorbeikommen.} \)
\[ \quad \text{were \ you \ at.home would I \ drop.by} \]
\[ \quad \text{‘If you were at home, I’d drop by.’} \]

\(^{104}\) Example (508b) assumes that \( \text{würde} \ ‘\text{would}’ \) is not the conditional modal itself, but rather an analytic mood marker, given that modern day German uses analytic \( \text{würde} + V \) forms instead of synthetic forms to express the subjunctive, cf. Scholz (1991).
Assuming a uniform structure for conditional antecedents and exclamations, we can posit such an operator also in the cases of *wenn* ‘if’, in (509). From a unificatory perspective, it seems further motivated to extend the proposal to *dass*-exclamations, as given in (510). For these two construction types, such a proposal accounts for the fact that SpecCP in *dass*-clauses and *wenn*-clauses not only need not be filled, but actually must not be filled: They already contain a null operator. (Notably, this idea can however not be extended to regular complement *dass*-clauses.)

(509) a. \[
\begin{array}{c}
\text{SpecCP EX}_S [C' \textbf{Wenn} [TP \text{ du doch zuhause \textit{wärst}}]]! \\
\text{if you doch at.home were}
\end{array}
\]
‘If only you were at home!’

b. \[
\begin{array}{c}
\text{SpecCP \forall [C' \textbf{Wenn} [TP \text{ zuhause wärst}]}, \text{ würde ich vorbeikommen.} \\
\text{if you at.home were would I drop by}
\end{array}
\]
‘If you were at home, I’d drop by.’

(510) \[
\begin{array}{c}
\text{SpecCP EX}_S [C' \textbf{Dass} [TP \text{ du doch zuhause \textit{wärst}}]]! \\
\text{that you doch at.home were}
\end{array}
\]
‘If only you were at home!’

The view that optatives and conditional antecedents contain a null operator in SpecCP can be motivated as follows. First, it is a common assumption that German is a strict verb second language, and V1 structures contain a null operator (or an elided element) in SpecCP. For yes/no-questions it is a plausible assumption that this null operator is a question operator \(Q\). The view that questions contain a null operator as opposed to an elided lexical item is supported by the fact that nothing can, in fact, be overtly realized in the SpecCP of yes/no-questions, as shown in (511).

(511) a. \[
\begin{array}{c}
\text{CP} Q [C' \textbf{Bist} [TP \text{ du denn zuhause \textit{t bist}}]]? \\
\text{are you denn at.home}
\end{array}
\]
‘Are you home?’

b. \[
\begin{array}{c}
(*\text{Es} / *\text{Jetzt} / *\text{Dann}) \text{ bist du denn zuhause \textit{t bist}}? \\
\text{it now then are you denn at.home}
\end{array}
\]
‘(*It / *Now / *Then) are you home?’

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c. * Du bist \(t_{\text{du}}\) denn zuhause \(t_{\text{bist}}\)?
   you are denn at.home
   ‘You are home?’

Exactly the same argument can be made in favor of a null operator in the case of conditional antecedents, (512), and exclamations, (513): No overt element can possibly appear in the pre-V1 position (we can test this for optatives, but not so easily for polar exclamatives, due to their similarity to declaratives, cf. chapter 2).

   were you at.home would I drop by
   ‘Were you at home, I’d drop by’

   b. (*Es / Jetzt / Dann) wärst du zuhause, würde ich vorbeikommen.
      it now then were you at.home would I drop by
      ‘(*It / *Now / *Then) were you at home, I’d drop by’

   c. * Du wärst \(t_{\text{du}}\) zuhause, würde ich vorbeikommen.
      you were at.home would I drop by
      ‘You were home, I’d drop by’

(513) a. Wärst du doch zuhause!
   were you doch at.home
   ‘Were you only at home!’

   b. (*Es / Jetzt / Dann) wärst du doch zuhause!
      it now then were you doch at.home
      ‘(*It / *Now / *Then) were you only at home!’

   c. # Du wärst \(t_{\text{du}}\) doch zuhause!
      you were doch at.home
      ‘You were only at home!’ (\textit{only reading}: ‘Of course, you’d be home!’)

This leaves us, however, without an explanation for the fact that complement dass-clauses do not allow for any elements in their SpecCP position either, although they do not seem to contain a null operator of any sort\(^{105}\).

\[^{105}\text{An alternative hypothesis would be to assume that dass-clauses, wenn-clauses and V1-clauses always contain a MAX operator in SpecCP, which yields the most salient / closest plurality of possible worlds (cf. Schlenker 2004, Bhatt & Pancheva 2002, 2006, Schein 2003) in which the modified proposition is true. I leave an exploration of this option open for future research.}\]
5.4 Summary

In this chapter, I have presented a system for semantic mood, with a focus on exclamations. The central goal was to try to understand how exclamations achieve the factivity/counterfactuality presuppositions that they do, and how complementizer selection and T-to-C movement in exclamations are constrained. I have argued that factivity/counterfactuality presuppositions in exclamations are due to semantic mood features, which co-determine the material that surfaces in C and the morphological mood on the finite verb or auxiliary. I presented an implementation in terms of agreement between C and Mood, which can give rise to movement from Mood to C, or even movement from a complex T+Mood head to C. I subsequently discussed the integration of my proposal into the larger context of literature on mood selection and verb movement.
6. Particles and Forces: Modulating EX

This section aims at resolving one of the most puzzling properties of optatives and other exclamations: The presence of different particles. I first present an overview of my proposal, starting with the issues that are at stake, in section 6.1.1, and my analysis in section 6.1.2, followed by a brief discussion of possible predictions in section 6.1.3. I then focus on three case studies: The particles ‘only’ (6.2), ‘at least’ (6.3) and doch (6.4), which are the prototypical markers of optativity in German and many other languages.

6.1 On the Role of Particles in Exclamations

6.1.1 The Core Puzzles

As a brief reminder, optatives are utterances that express a wish, hope or desire without containing a lexical item that means ‘wish’, ‘hope’ or ‘desire’ (cf. Scholz 1991, Rosengren 1993, Rifkin 2000, Kyriakaki 2007, 2008, 2009, Asarina & Shklovsky 2008, Biezma 2011ab). In this dissertation, I have so far argued for an analysis that derives desirability in optatives from a generalized exclamation operator EX, which I formalized as in (514), repeated from (138).

\[(514)\text{For any scale } S \text{ and proposition } p, \text{ interpreted in relation to a context } c \text{ and assignment function } g,\]

\[\text{an utterance } EX(S)(p) \text{ is felicitous iff } \forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]\]

“EX expresses an emotion that captures the fact that \( p \) is higher on a (speaker-related) scale \( S \) than all contextually relevant alternatives \( q \) below a contextual threshold.”

where \( \text{THRESHOLD}(c) \) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale \( S \).

One of the puzzling properties of optatives is the proliferation of particles in such utterances. In German, the prototypical optative particles are nur ‘only’, wenigstens ‘at least’ and doch ‘but, though’, cf. Scholz (1991). I focus on these three elements, both in German and from a cross-linguistic perspective. However, beyond these three elements,
the goal of this chapter is to lay out a generalized framework for analyzing ‘discourse’ particles and their impact on speech act disambiguation. Let me briefly review four observations on discourse particles in optatives and state the puzzle at the end of this section.

The first observation on the three particles under discussion is that they can co-occur quite freely in optatives, as illustrated for a dass-optative in (515). All of the examples in (515a-h) are acceptable optatives in German.

(515)a. (Ach,) Dass ich **doch nur** wenigstens einen von ihnen getroffen hätte!
b. (Ach,) Dass ich **doch** einen von ihnen getroffen hätte!
c. (Ach,) Dass ich **doch** einen von ihnen getroffen hätte!
d. (Ach,) Dass ich **nur** einen von ihnen getroffen hätte!
e. (Ach,) Dass ich **wenigstens** einen von ihnen getroffen hätte!
f. (Ach,) Dass ich **doch wenigstens** einen von ihnen getroffen hätte!
g. (Ach,) Dass ich **nur wenigstens** einen von ihnen getroffen hätte!
h. (Ach,) Dass ich **doch wenigstens** einen von ihnen getroffen hätte!

Oh that I **DOCH** only at.least one of them met had
‘Oh, that I had met one of them!’ / ‘If only I had met one of them!’

The second observation is that these particles do not obviously seem to modify the proposition that is wished for in an optative; all of the examples in (516a-c) amount to an expression of the wish in (516d).

(516) **Context: I just had a very embarrassing crash with my snowboard.**

a. Wenn mich **doch** niemand gesehen hätte!
   if me **doch** nobody seen had

b. Wenn mich **nur** niemand gesehen hätte!
   if me **only** nobody seen had

c. Wenn mich **wenigstens** niemand gesehen hätte!
   if me **at.least** nobody seen had

d. **wish paraphrase:** I wish nobody had seen me.

As a third observation, we find that, while no single particle is obligatory in an optative clause, particles are nevertheless prototypical and often quasi-obligatory. One half of this observation consists of the fact that we can find exclamations without any particles that
nevertheless express an optative-like positive evaluation. A selection is given in (517).
(Native speakers differ in the extent to which they accept these particle-less exclamations.)

(517)a. Dass ich noch einmal Venedig sehen könnte!
that I still once Venice see could
‘Oh that I could see Venice once more!’

(Truckenbrodt 2006a)

b. Wenn ich deine Statur hätte!
if I your build had
‘[Oh!] If [only] I had your build!’

(adapted from Evans 2007, most natural stress marking is indicated by me)

c. Rico schaute die Blumen an und dachte:
‘Rico looked at the flowers and thought:’

‘Wenn Stineli diese sehen könnte!’
if Stineli these see could
‘If Stineli could see these!’

und stand lange unbeweglich am Zaun.
‘and stood at the fence for a long time without moving.’

(Johanna Spyri (1878): Heimatlos. Discussed in Grosz 2011)

d. WÄRE ich zuhause geblieben!
WERE I at.home stayed
‘HAD I stayed home!’

(Rosengren 1993:36)

The other half of this observation consists of the following fact. While borderline examples of wish-conveying exclamations exist, as documented in (517), it seems to be a default that optatives contain either one of the prototypical particles (nur ‘only’, wenigstens ‘at least’ and doch in German) or a suitable interjection (ach ‘oh’ or oh ‘oh’ in German), cf. Thurmair (1989), Scholz (1991), Rosengren (1993), Coniglio (2009). This fact is illustrated in (518). The illformedness of utterances like (518e) has lead many scholars to conclude that particles are, in fact, obligatory in optatives (e.g. Pittner 2007). I side with Rosengren (1993) in assuming that particles are prototypical rather than
obligatory for optatives (i.e. optatives do not require particles, but optatives are most natural if they do contain particles).

(518)a. Wäre er nur rechtzeitig gekommen!
   were he only in.time come
b. Wäre er doch rechtzeitig gekommen!
   were he doch in.time come
c. Wäre er wenigstens rechtzeitig gekommen!
   were he at.least in.time come
d. Ach, wäre er rechtzeitig gekommen!
   oh were he in.time come
e. ?# Wäre er rechtzeitig gekommen!
   were he in.time come
   ‘If only he had come in time!’

Let me briefly elaborate on the present empirical discussion, by showing that German is not an isolated case. A language that behaves rather similar to German is Italian. Italian allows for a variety of particle-less optatives (typically without se ‘if’).

(519)a. Il Signore ci protegga. (di Lampedusa, Il Gattopardo)
   the Lord us protect-subj-3sg
   ‘May the Lord protect us.’
   (Portner 2006, quoting Portner 1997 who takes the data from Moretti & Orvieto 1978)
b. Dai nemici mi guardio. [Dagli amici mi guardi Iddio!]
   from.the enemies me protect.1sg.ind I [from.the friends me protect.3sg.subj God]
   ‘I protect myself from my enemies. [(May) God protect me from my friends!]’
   (Italian proverb)
c. Potessi venire anch’io
   can.1sg.pres.subj come also I
   ‘If only I could come too!’
   (quoted from Palmer 2001:132, who attributes it to Lepschy & Lepschy 1977)
d. Ti prenda un colpo!
you take.SUBJ a stroke
‘May you have a stroke!’
(Giorgi 2009:1854)

Similar to German, *if*-optatives typically contain a particle or an interjection, and as in German, these elements are drawn from a set containing ‘only’, ‘at least’ and ‘oh’.

(520)a. Se **solo/solamente** John avesse ascoltato Maria!
if only John had listened.to(past.subj) Mary
‘If only John had listened to Mary!’

b. Se John avesse **almeno** ascoltato Maria!
if John had at.least listened.to(past.subj) Mary
‘If John had at least listened to Mary!’

c. **Oh, se** John avesse ascoltato Maria!
oh if John had listened.to(past.subj) Mary
‘Oh, if John had listened to Mary!’

With complementizerless optatives, we also find a variant that employs the optative-specific particle *magari*.

(521) **Magari** Maria avesse ascoltato Gianni!
MAGARI Maria had listened.to Gianni
‘I wish Maria had listened to Gianni!’

These observations corroborate the assumption that particles cross-linguistically have a role of prototypical optative markers (as opposed to a role of obligatory optative licensors).

This brings us to the fourth and final observation that we should concern ourselves with. Particles disambiguate between different types of exclamations. Example (522a) is ambiguous between an optative reading, given in (522b), and a polar exclamative reading, paraphrased in (522c).
As soon as we add the particle nur ‘only’, the polar exclamative reading disappears, as shown in (523c). But why?

(523) a. Hätte die dem (doch) nur tatsächlich das Buch gegeben!
    had subj she him doch only indeed the book given
    lit. Had subjunctive she only indeed given him the book!
    
    b. ‘If only she had given him the book!’
    opt.
    
    c. *‘[It’s shocking that] she would have only given him the book!’
    p.exc.

The goal of this chapter is to find answers to the following questions. First, and most crucially, what type of meaning do these particles contribute to optatives? A solution to this question should account for the fact that they do not seem to modify the desired proposition and for the fact that they are freely compatible. Second, why do they disambiguate between different types of exclamations? And third, why are they prototypical for optatives and how do they “license” optatives?

6.1.2 The Core Proposal

I argue that particles in optatives are truth-conditionally vacuous elements that act as pure presupposition triggers, modulating the expressive meaning that is conveyed by means of EX. Their truth conditions are thus identical (namely vacuous), given in (524). Each particle maps a proposition to itself, provided that the particle’s non-truth-conditional contribution is licensed in the utterance context. I conjecture that this is a hallmark of the meaning of discourse particles (see also Kratzer 1999, Kratzer & Matthewson 2009), and
that nur ‘only’ and wenigstens ‘at least’ in this reading should be grouped together with other, seemingly more elusive discourse particles (cf. Malte Zimmermann forthcoming).

(524) truth-conditional semantics of ‘at least’, ‘only’ and ‘doch’ in optatives

If defined, ||wenigstens ‘at least’ / nur ‘only’ / doch|| = λ.p.p

I now proceed to discuss the non-truth-conditional content of each of the three particles that I focus on.

First, I propose that the function of only in optatives is to mark that the desired proposition is comparatively low on the speaker’s preference scale, as given in (525). Essentially, adding nur ‘only’ into an optative indicates that the modified proposition is ‘not much to ask’. In an expression of desire, this is a felicitous move, as it may convey desperation and/or modesty, depending on the context. The details of my analysis are given in section 6.2.

(525)a. Wenn Otto nur auf seine Mutter gehört hätte!
    if Otto only to his mother listened had
    ‘If only Otto had listened to his mother!’

b. presuppositions of nur: This is not much to ask for (i.e. it’s low on some scale).

c. formalization:
   ||only_{2,C}|| = λ.S.λ.p : MOST q ∈ g(C) [q >_{S} p] .

   “only_{2} is a truth-conditionally vacuous element (different from canonical only), which triggers a presupposition that the modified proposition is low on a contextually provided scale.”

   (based on Guerzoni’s 2003 nur_{2}, assuming that all cases of only are scalar)

Second, I argue that the function of at least in optatives is to convey a ‘settling for less’ attitude. This is appropriate whenever it has already become clear that the speaker actually wishes for something better than the expressed proposition; it conveys that the speaker acknowledges that the better option is unachievable and thus lowers the threshold of what is desirable. The details of my analysis are given in section 6.3.
(526)a. Wenn Otto **wenigstens** auf seine Mutter gehört hätte!  
if Otto at least to his mother listened had  
‘If Otto had at least listened to his mother!’

b. **presuppositions of wenigstens**: This is tolerable but there is a better option.

c. **formalization**:

\[
||\text{wenigstens}_C||^{g,c} = \lambda S. \lambda p : \\
\text{S is a bouletic ordering} \land \text{BOULETIC} \\
\exists r \in g(C) [r >_S p] \land \exists q \in g(C) [p >_S q]. \text{SECOND CHOICE} \\
p \land \text{IDENTITY}
\]

“**wenigstens** is a truth-conditionally vacuous element (corresponding to English concessive **at least**), which combines with a bouletic scale and presupposes that there is a contextually salient proposition that is more preferable than the modified proposition, as well as a contextually salient proposition that is less preferable.”

(based on Nakanishi & Rullmann’s 2009 **concessive at least**)

Finally, the function of **doch** is to emphasize the contrast between what is desired and what is the case. By doing so, **doch** gives rise to a strengthening effect, i.e. the wish seems more emphatic. I discuss the particle **doch** in section 6.4.

(527)a. Wenn Otto **doch** auf seine Mutter gehört hätte!  
if Otto **DOCH** to his mother listened had  
‘If only Otto had listened to his mother!’

b. **presuppositions of doch**: This is in sharp contrast (i.e. contradiction) to reality.

c. **formalization**:

\[
||\text{doch}_C||^{g,c,w} = \lambda p : \\
\exists q \in g(C) [p \neq q \land \neg(p(w) \land q(w))]. \text{CONFLICT} \\
p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset \lor \neg p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset. \text{FAMILIARITY} \\
p \land \text{IDENTITY}
\]

“**doch** is a truth-conditionally vacuous element, which triggers a presupposition that the truth/falsity of the modified proposition is established and that the modified proposition conflicts with some contextually salient proposition.”

(based on Grosz 2010, Kratzer & Matthewson 2009)
As shown in (528), my analysis derives the fact that different particles can combine in an optative without shifting the core expressive meaning in any relevant sense. The particle that has most impact may be *wenigstens* ‘at least’, as it explicitly makes salient a more preferable alternative. In this sense, particles are *modulators*, i.e. elements that fine-tune the expression of a wish that is conveyed by means of the *EX* operator.

(528)a. Wenn Otto *doch nur wenigstens* auf seine Mutter gehört hätte!  
    if Otto *DOCH* only at.least to his mother listened had  
    ‘If only Otto had listened to his mother!’

b. *meaning without particles*: I’d be content if Otto had listened to his mother.

c. *contribution of wenigstens*: I’m settling for a less than optimal option.

d. *contribution of nur*: This is not much to ask for (i.e. it’s low on some scale).

e. *contribution of doch*: This is in sharp contrast (i.e. contradiction) to reality.

This analysis also correctly predicts that two quasi-synonymous elements can co-occur under their truth-conditionally vacuous reading, which is illustrated for German *nur* ‘only’ and its informal variant *bloß* ‘only’ in (529)\(^{106}\), and for Croatian (and Serbian) *barem* ‘at least’ and *makar* ‘only’ in (530).

(529) a. Wenn *nur* *bloß* alle Menschen so glücklich wären!  
    if only only all humans so happy were  
    ‘If only all humans were so happy!’

b. Wenn *bloß nur* alle Menschen so glücklich wären!  
    if only only all humans so happy were  
    ‘If only all humans were so happy!’

(530) a. Kad bi *barem makar* danas pala kisa!  
    when would at.least at.least today fall.part.fem rain  
    ‘I wish it would rain at least today.’ (lit. ‘If it would rain at least today!’)

b. Kad bi *makar barem* danas pala kisa!  
    when would at.least at.least today fall.part.fem rain  
    ‘I wish it would rain at least today.’ (lit. ‘If it would rain at least today!’)

\(^{106}\) In optatives, *bloß* ‘only’ typically has the same distribution as *nur* ‘only’. I omitted it from most of the discussion in this dissertation, as its meaning is sufficiently covered by discussing *nur* ‘only’.

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For the prototypicality of particles in optatives and for their disambiguating effect, I pursue the view laid out in Grosz (2011). As argued above, particles impose different restrictions on the utterance context and on the utterance that they occur in. They do so by virtue of the presuppositions that they trigger. Disambiguation amounts to the elimination of incompatible readings.

To exemplify, we find that *doch* is incompatible with a subjunctive conditional antecedent, cf. (532b)/(533b) versus (531b). Similarly, *nur* ‘only’ is incompatible with a polar exclamative reading for a V1 clause, cf. (533c) versus (531b)/(532b). (I will discuss these incompatibilities in some detail in section 6.5 and when discussing the isolated particles.) Therefore, adding *doch* and *nur* ‘only’ to the ambiguous (531a) narrows down the range of possible readings. (Examples based on Scholz 1991:132-133.)

(531) a. **Hätte die dem tatSÄCHlich das Buch gegeben …**
    
    had$_{subj}$ she him indeed the book given
    
    lit. Had$_{subjunctive}$ she indeed given him the book …
    
    b. ‘If she had given him the book …’ cond.
    
    c. ‘[It’s shocking that] she would have indeed given him the book …’ p.exc.
    
    d. ‘If only she had given him the book …’ opt.

(532) a. **Hätte die dem **d**och** tatSÄCHlich das Buch gegeben …**
    
    had$_{subj}$ she him **d**och indeed the book given
    
    lit. Had$_{subjunctive}$ she indeed given him the book …
    
    b.* ‘If she had given him the book …’ cond.
    
    c. ‘[It’s shocking that] she would have indeed given him the book …’ p.exc.
    
    d. ‘If only she had given him the book …’ opt.

(533) a. **Hätte die dem **d**och nur** tatSÄCHlich das Buch gegeben …**
    
    had$_{subj}$ she him **d**och only indeed the book given
    
    lit. Had$_{subjunctive}$ she only indeed given him the book …
    
    b.* ‘If she had given him the book …’ cond.
    
    c.* ‘[It’s shocking that] she would have indeed given him the book …’ p.exc.
    
    d. ‘If only she had given him the book …’ opt.
We can now argue that prototypicality / quasi-obligatoriness of particles in optatives (and other exclamations) emerges as a the mirror image of their disambiguation property. The graph in (534) captures the schema that we observe in (531)-(533). We can incrementally eliminate unintended readings of a multiply ambiguous utterance like the V1-clause in (531) by adding different particles.

(534)  
\[
\begin{array}{c}
\text{V1-clause} \\
+ \text{doch} \\
+ \text{doch + nur}
\end{array} \quad \rightarrow \quad \begin{array}{c}
\text{hypothetical conditional} \\
\text{polar exclamative} \\
\text{optative}
\end{array}
\]

Conversely, it can be inferred from general strategies for successful conversation that speakers will use particles whenever they can in order to disambiguate, and hearers will expect this, see section 6.5. As a consequence, a hearer who hears (531) will typically disambiguate towards a hypothetical conditional, and an intended optative reading will become deviant as a result of this faulty disambiguation. This gives rise to the quasi-obligatoriness of discourse particles in exclamations.

### 6.1.3 A remark on the non-equivalence of different particles

Before discussing the individual contributions of the three particles that I am focusing on, it is worth pointing out one prediction that can easily be shown to hold: Isolated particles (i.e. *nur* ‘only’, *wenigstens* ‘at least’ and *doch* that do not cluster together) should exhibit distributional differences. Specifically, I have argued that *nur* ‘only’ conveys that the modified proposition is not much to ask for, *wenigstens* ‘at least’ conveys that there is a better option and I’m willing to compromise, and *doch* merely marks the sharp contrast between what is desired and what is the case.

We expect these different presuppositions to entail a different distribution of the particles; however, any judgments in this area will be most subtle, as it is easy to
accommodate for one or the other piece of background information. Nevertheless, I believe that it can be shown that the particles do indeed differ in this respect.

First of all, we have already seen that wenigstens ‘at least’ contrasts from doch and nur ‘only’ in the sense that doch-optatives and nur-optatives are licensed in a broader set of contexts than wenigstens-optatives. The particle wenigstens ‘at least’ is bad in (535), as it presupposes that chocolate cake is not the best possible scenario – which however it is. The illformedness of wenigstens ‘at least’ in (535) is correctly predicted; it is due to the presupposition of wenigstens ‘at least’ that something else is more desirable.

(535) Sofia promised to bring something to my picnic. My first choice is chocolate cake; my second choice is apple pie; I absolutely hate vanilla ice cream.

Jetzt kommt die mit Vanilleeis daher! …

‘Now she arrives with Vanilla ice cream!’

Ach, wenn sie doch / nur / wenigstens einen Schokokuchen gebracht hätte!

‘If only she had brought an chocolate cake!’

Flipping our perspective, it can also be shown that an optative that explicitly amounts to a wenigstens-type compromise is hardly compatible with doch or nur ‘only’, (536c). Again, this is expected, as Maximize Presupposition (Heim 1991) may require us to use wenigstens ‘at least’ whenever we can to convey the compromise that we are agreeing to.

(536)a. Jetzt kommt die mit Vanilleeis daher! …

‘Now she arrives with Vanilla ice cream!’

b. Ach, wenn sie doch / nur / wenigstens einen Schokokuchen gebracht hätte!

‘If only she had brought an chocolate cake!’

c. Oder wenn sie doch / nur / wenigstens einen Apfelkuchen gebracht hätte!

‘Or at least if only she had brought an apple pie!’
Having shown that *wenigstens* ‘at least’ does indeed distribute differently from *nur* ‘only’ and *doch*, the question arises if we find similar contrasts between *doch* and *nur* ‘only’. I believe that we do. Consider the naturally occurring example in (537a), which employs a *nur*-optative. I have constructed (537b) by substituting *doch* for *nur* ‘only’. While intuitions here are hard to probe, it seems as though (537b) is deviant. This is predicted by my account as follows: *nur*-optatives are ‘modest wishes’, i.e. they presuppose that whatever is wished for is rather low on the scale of the speaker’s preferences; clearly, this presupposition is satisfied if someone who is ill and about to die expresses a wish to hear a church bell. I conjecture that *doch* is here blocked as it does not convey this presupposition.


‘When your uncle Simon once lay in the field across from the enemy and was taken ill, he said, as I visited him: ‘Father, *if only I* could hear the Oberplan bell once again!’ but he could not hear it for another time and he had to die.’

(A. Stifter: *Bunte Steine*)


Can we find the inverse of (537), an example where *doch* must be used as *nur* ‘only’ is not satisfied? I propose that (538) may be a relevant example. (538a) is, once again, a naturally occurring example of a *doch*-optative from the literature. I have constructed (538b) by replacing the *doch*-optative with a *nur*-optative. In the context of this theater play, it appears that Toni is weary of life and the sole thing she desires at the point at which she utters this optative is to die. In such a context, a *lowness* presupposition may be vacuous, as there are no higher preferences any more. I conjecture that for this reason *nur* ‘only’ is deviant in (538b).
(538)a. WENDT. Toni!!

TONI. Ach, mir ist ... Faßt sich. Ja! ... Wir dürfen jetzt nicht mehr – daran
denken! ... Ich habe das nicht nur so – hingesagt! ... Das ist nun – vorbei! ...

TONI: ‘Oh, I am … she composes herself. Yes! … we must now no longer –
think of it! … I didn’t just – say this! … This is now – over! …’

WENDT. Ach, du weißt ja nicht, was du ... Wir wissen ja nicht – jetzt ...

WENDT: ‘Oh, but you don’t know what you … we don’t yet know – now …’

TONI müde, gequält. Ach, wenn ich doch tot wär! ...

TONI tired, agonized: ‘Oh if only I were dead! …’

(Arno Holz: Die Familie Selicke)

b. "TONI müde, gequält. Ach, wenn ich nur tot wär! ...

TONI tired, agonized: ‘Oh if only I were dead! …’

The following constructed example also replicates the intuition that *doch* and *nur* ‘only’
are not always freely exchangeable. In (539), B conveys that having time would be the
most minimal thing that B would require in order to follow A’s advice; in such a
situation, *doch* seems somewhat odd, as it is clear that this is a rather modest wish.

(539) A: Du solltest jeden Tag zum Yoga gehen.

‘You should go to yoga classes every day.’

B: Ha! Wenn ich nur / #doch die Zeit dafür hätte!

‘Ha! If only I had time for it!’

I conclude that evidence can be construed, which shows that *doch*, *nur* ‘only’ and
*wenigstens* ‘at least’ are not always freely replaceable. I have shown that there are
contexts where *doch/nur* ‘only’ are preferred over *wenigstens* ‘at least’ and vice versa. I
have also shown that there are contexts where *doch* is preferred over *nur* ‘only’ and vice
versa. I documented that such restrictions and asymmetries are as predicted by the
analysis I proposed above. Having thus presented and motivated a semantic analysis for
the prototypical optative particles, I will now discuss each of these particles individually.
6.2 The *Only* Problem

6.2.1 *Only* or not *Only*?

This section discusses a compositionality problem first discussed explicitly by Rifkin (2000). I first discuss the empirical scope of my analysis, then introduce the puzzle, and then outline the analysis that I am positing.

6.2.1.1 The Empirical Scope

Starting with the data, Rifkin (2000) observes that the particle *only* is cross-linguistically frequently used in optatives. He documents this for typologically diverse languages such as German, Italian, Russian, Hebrew and Finnish, (540).

(540)a. Wenn Hans (doch) nur reich wäre. \(\text{German}\)
   if Hans doch only rich be-subj

b. Se solo/soltanto Gianni fosse rocco. \(\text{Italian}\)
   if only/only Gianni were rich

c. jesli by ja tol’ko byl bogatym \(\text{Russian}\)
   if subj I only were rich

d. ilu/lu rak hayiti ashir \(\text{Hebrew}\)
   if only be-past-1sg rich

e. Jos vain olisin rikas \(\text{Finnish}\)
   if only be-cond-1sg rich

‘If only Hans/Gianni/he were rich.’
(Rifkin 2000)

As shown in (541), the particles glossed as ‘only’ in (540) are the same particles that we typically find in exclusive contexts.

(541)a. Hans hat nur einen Freund. \(\text{German}\)
   Hans has only one friend

b. Gianni ha solo/soltanto/solamente un amico. \(\text{Italian}\)
   Gianni has only/only/only one friend
c. u ivana tol’ko adin drug
   to Ivan-Gen only one friend

   Russian

d. yesh l’David rak xaver exad.
   there-exists to-David only friend one

   Hebrew

e. Jussi-lla on vain yksi ystävä
   Jussi-adessive is only one friend

   Finnish

f. John-i puca-i-ki-man
   John-nom rich.person-be-nmlz.only do-past-past-if
   ‘Hans/Gianni/Ivan/David/Jussi only has one friend.’

   Korean

(Rifkin 2000)

A brief overview of other languages in which only-type elements occur in optatives is given in (542).

(542)a. Ef Jón hefði bara hlustað á Mariu!
      if John had only listened to Mary

      Icelandic

b. Kdy-by jen Honza poslechl Marii!
   when-subj.3 only Honza listened.pst.ptcp Marie.acc

   Czech

c. Gdyby / Żeby tylko Jan (po)łuchał Marii.
   if if only John listen.(perf.)pret.3sg.m Mary.gen.nom.f

   Polish

d. Da je samo Jovan poslušao Mariju!
   that be.3sg only John listened Mary-acc

   Serbian

e. Si seulement John avait écouté Mary!
   if only John had listened.to Mary

   French

f. Als Jan (nou) maar naar Marie had geluisterd!
   if Jan PRT only/but to Marie had listened

   Dutch

g. Kun vîr John sme3 l Mary
   if only John listened to Mary

   Moroccan Arabic

h. Bár-csak János hallgat-ott volna Maria-ra!
   though-only John listen-past.3sg cond Mary-(on)to

   Hungarian

i. Oh, miain/menak ete Jona Meriin lasats liner.
   Oh, only/only if John Mary listened had

   Eastern Armenian

   ‘If only John had listened to Mary!’

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m. (Ah,) law kent **bass** ghani!  
Lebanese Arabic  
oh if was.1s only rich  
‘If only I were rich!’

n. Ak, hvis **bare** alle mennesker var gode!  
Danish  
oh if only all people were good  
‘Oh, if only all people were good!’

o. Om han **bare** hadde kjørt litt forttere!  
Norwegian  
if he only had driven little faster  
‘If only he had driven a bit faster!’

Focusing on German and English, we immediately notice that the ability to occur in optatives is not limited to a single lexical entry for ‘only’, but rather seems to be attached to some meaning component of ‘only’. What we find is that while English only is the most typical element in optatives, (543a), just can also occur, (543b). Other elements that have the same exclusive reading cannot occur in optatives, as illustrated for merely, (543c).

(543)  

a. Oh, if he **only / just / merely** knew how much we miss him!  

b. I **only / just / merely** have three of his books.

German shows a similar pattern; nur ‘only’ and bloß ‘only, just’ (which has a more pragmatic / casual flavor) can occur in optatives, cf. Scholz (1991); lediglich ‘merely’ cannot.

(544)  

a. Ach, wäre ich **bloß / nur / #lediglich** reich!  
oh were I only only merely rich  
‘Oh, if only I were rich!’

b. Ich habe **bloß / nur / lediglich** drei seiner Bücher.  
I have only only merely three of his books  
‘I only have three of his books.’

In the absence of an understanding of the difference between *only*/just and merely, these data make one point: There is something about the meaning of only that has an
inclination for occurring in optatives; yet it is not completely unconstrained. Let us now review the problem that only poses in optatives.

### 6.2.1.2 A Compositionality Problem

The core problem with respect to only in optatives is that we are faced with a compositionality problem. Consider a sketch of a standard lexical entry for only in (545) (assuming for simplicity that all entries for only are scalar, cf. Jacobs 1983, Bayer 1996, Klinedinst 2004, 2005, Krasikova & Zhechev 2006, Riester 2006, Beaver & Clark 2008).

In words, only presupposes that the modified proposition \( p \) (or a higher proposition on a contextually provided scale) is true (the ‘prejacent presupposition’), (545a), and it presupposes that \( p \) is low on the contextually provided scale, (545b). If defined, only asserts that no proposition that is higher than \( p \) is true, (545c). (See section 6.2.3 for more details on this analysis.)

\[
(545)\text{a. } \|\text{only}_c\| = \lambda.S.\lambda.p.\lambda.w : \ p(w) \lor \exists q [q >_S p \rightarrow q(w) = 1] \land \ \text{AT LEAST} \\
\quad \text{“Presupposition 1: The modified proposition or a higher scalar alternative is true.”}
\]

\[
(545)\text{b. } \text{MOST } q \in g(C) [q >_S p] . \ \ \ \text{LOWNESS} \\
\quad \text{“Presupposition 2: The modified proposition is low on the salient scale.”}
\]

\[
(545)\text{c. } \neg \exists q [q >_S p \rightarrow q(w) = 1] \ \ \ \text{NO MORE} \\
\quad \text{“Truth Conditional Content: There is no higher scalar alternative that is true.”}
\]

Under such a canonical view of only as ‘exclusive’, only is equivalent to ‘nothing but’ or ‘nothing more than’, which accounts for its meaning in declarative assertions, (546).

\[
(546)\text{a. } \text{Ich habe nur Hans gesehen. } = \text{ Ich habe niemanden außer Hans } \text{ gesehen.} \\
\text{I have only Hans seen } \quad \text{I have nobody but Hans seen} \\
\text{‘I have only seen Hans.’} \quad \text{‘I have not seen anyone but Hans.’}
\]

\[
(546)\text{b. } \text{Ich habe nur drei Äpfel. } = \text{ Ich habe nicht mehr als drei Äpfel.} \\
\text{I have only three apples } \quad \text{I have not more than three apples} \\
\text{‘I only have three apples.’} \quad \text{‘I do not have more than three apples.’}
\]
What becomes clear instantly is that optatives do not convey such an exclusive meaning.

(547a) If I had only seen John!
    = I wish I had seen John.
    ≠ I wish I had not seen anyone but John.
    (cf. #If I hadn’t seen anyone but John!)

b. If I only had three apples!
    = I wish I had three apples.
    ≠ I wish I did not have more than three apples.
    (cf. #If I did not have more than three apples!)

c. If only it had rained!
    = I wish it had rained.
    ≠ I wish nothing else but rain had occurred (e.g. no thunder and lightning).
    (cf. #If nothing had happened but rain!)

The intuition that optative only is not equivalent to an exclusive construction such as nothing but or no more than is corroborated by the fact that in French seulement ‘only’ can occur in optatives, but ne...que ‘nothing but’ cannot.

(548) a. Si seulement Jean avait écouté Marie!
    if only Jean had listened.to Marie
    ‘If only Jean had listened to Marie!’

b.* Si Jean n’avait que écouté Marie!
    if Jean NEG’had only listened.to Marie

Therefore, a compositionality problem arises that can be summarized as follows. If only always has an exclusive reading, as given in (545), how can we account for only in optatives where it does not seem to contribute exclusivity?

6.2.1.3 The Solution in Brief

To solve the present compositionality problem, I follow Guerzoni (2003) and argue that many languages have two readings for only, which we can call ONLY₁ (or only₁) and ONLY₂ (or only₂). Guerzoni (2003) proposes that German has ONLY₂, which is non-
exclusive (at the level of assertion), truth-conditionally vacuous. I depart from Guerzoni in assuming that the core contribution of ONLY$2$ is a lowness presupposition and that ONLY$2$ may lack exclusivity altogether. The two lexical entries that I assume are given below. Example (549) now accounts for the standard exclusive reading of only, as illustrated in (546) for German and English.

\[(549)\text{a. } ||\text{only}_1,\text{c}|| = \lambda S. \lambda p. \lambda w : \ p(w) \lor \exists q [q >_S p \rightarrow q(w) = 1] \land \text{AT LEAST}\]

"Presupposition 1: The modified proposition or a higher scalar alternative is true."

b. MOST $q \in g(C) [q >_S p]$.

"Presupposition 2: The modified proposition is low on the salient scale."

c. $\neg \exists q [q >_S p \rightarrow q(w) = 1] \land \text{AT MOST}\]

"Truth Conditional Content: There is no higher scalar alternative that is true."

Contrastively, (550) accounts for the non-canonical reading of only that we see in optatives cross-linguistically.

\[(550)\text{a. } ||\text{only}_2,\text{c}|| = \lambda S. \lambda p : \ \text{MOST } q \in g(C) [q >_S p] \land \text{LOWNESS}\]

"Presupposition: The modified proposition is low on the salient scale."

b. $p \land \text{IDENTITY}\]

"Truth Conditional Content: only$2$ is truth-conditionally vacuous."

Essentially, the contribution of only in an optative amounts to marking the modified proposition as low on a salient scale, typically the speaker’s preference scale. An open issue that I will not be able to address concerns the question of how ONLY$2$ and ONLY$1$ are composed from their meaning components. Given that, as I will show, both elements seem to share a lowness presupposition, this presupposition may be at the semantic core of only type elements. If we abbreviate the lowness presupposition of both only elements, \(((549)\text{b})+(550)\text{a})\) as LOW and the combination of at least presupposition and at most assertion that ONLY$1$ exhibits \(((549)\text{a}+\text{c})\) as EXH (for exhaustivizer, the meaning that underlies ‘exactly’) we can write generalizations as in (551a+b).
(551)a. \textbf{only}_1: \{LOW, EXH\} $\Rightarrow_{PF} \text{only}$

b. \textbf{only}_2: \{LOW\} $\Rightarrow_{PF} \text{only}$

It is conceivable that \textit{exactly} (as in \textit{I have exactly three apples} versus \textit{I have only three apples}) is the spell-out of \textit{EXH} on its own, but this is beyond the scope of my investigation.

The following section motivates the proposal in (549)+(550) by introducing a construction that to my knowledge has gone unnoticed in the past: Conditional clauses with non-exclusive (thus optative-like) \textit{only} in the antecedent, which convey (non-evaluatively) that the antecedent proposition is likely to come about (which in many cases amounts to saying that the antecedent proposition is ‘easy to achieve’). I will call this construction \textit{minimal sufficiency conditional}.

\textbf{6.2.2 The Missing Link: Minimal Sufficiency Conditionals}

\subsection*{6.2.2.1 Two Readings for \textit{Only} in Conditionals}

In this section, I argue that German has two readings for \textit{only} in conditional antecedents: The standard exclusive reading and an additional reading, which I will call the \textit{minimal sufficiency reading}. The minimal sufficiency reading amounts to the lexical entry of \textbf{ONLY}\textsubscript{2} that I proposed above. In this reading, \textit{only} merely triggers a presupposition that the modified proposition is low on a salient scale. The clearest example to illustrate this ambiguity is (552) (which, notably, lacks optative-like positive evaluation). Native speakers of German share the intuition that (552a) has both the reading in (552b) and the reading in (552c). (We will see that this intuition is also present in many other languages, but -- \textit{alas} -- not in English.) In the given example, (552c) is, in fact, the more natural reading, unless more context is given (e.g. if more than two people are required to keep the balance). I will first discuss German in some more detail to show that this is a reading that really exists. I discuss a range of other languages in the next section, and I will subsequently discuss English, which does not seem to allow for the reading in (552c).
(552) a. Wenn nur zwei Personen einsteigen, wird das Boot sinken.  
   if only two persons get in will the boat sink  
   lit. ‘If only two persons get into the boat, the boat will sink.’

b. ONLY₁ reading:  
   If no more than two persons (i.e. < 3 people) get into the boat, it will sink.

c. ONLY₂ reading:  
   If (at least) two persons (i.e. ≥ 2 people) get into the boat, which is not a lot,  
   it will sink.

Given that this construction does not seem to have been noticed before, it is worth  
pointing out that there is an abundance of naturally occurring conditionals that contain  
only with an ONLY₂ reading. A good recipe for finding such minimal sufficiency  
conditionals is to search for constructions where only is followed by a negative DP  
(niemand ‘nobody’ or keiner ‘none’) or universal DP (jeder ‘every’), as this forces  
sentential focus (cf. Büring & Hartmann’s 2001 generalization), which disprefers  
canonical ONLY₁ readings (plausibly due to its exhaustivity content). As indicated by the  
paraphrases, the minimal sufficiency reading is the dominant reading in all of the given  
examples. (A canonical reading for nur ‘only’ can be construed but is rather unnatural.)  
Consider first two examples where nur ‘only’ is followed by niemand ‘nobody’, in (553).

(553)a. Der Verein (zur Förderung des Zahlungsunwillens) hatte  
   the society for advancement of reluctance to pay had  
Gesellschaftsveränderung auf seine Fahnen geschrieben und meinte diese  
   social change on its flags written and thought this  
zu erreichen, [wenn nur niemand seine Rechnungen bezahlte].  
   to achieve if only nobody his bills paid  
‘The society to support reluctance to pay was committed to social change and  
believed to achieve it [if only nobody paid any bills].’

(Dietmar Sievers. 1996. ‘Die Brüsewitz-Maschine’. In Wandler, Zeitschrift für Literatur 19.)  
paraphrase: (The society believed that) [for nobody to pay any bills] was an  
easy means to achieve social change.
b. Es scheint immer noch Menschen zu geben, die meinen, die Neonazis
   it seems always still humans to give who think the Neonazis
   würden von selbst verschwinden, [wenn nur niemand hinschaut],
   would by self disappear if only nobody looks
   ‘There still seem to be people who believe the Neonazis would disappear
   automatically [if only nobody pays attention to them].’
   (‘Nazis sollen nicht unter sich bleiben. Zehntausende werden sich symbolisch und aktiv rechter
Demonstration in den Weg stellen.’ Neues Deutschland. February 13, 2010)

   paraphrase: (People believe that) [for nobody to watch] is an easy means to
   make the Neonazis go away.

Consider now (554), an illustration where nur ‘only’ is followed by keiner ‘none’.

(554) Das Ideal der Gleichheit ist das Ideal der Masse, die zufrieden
   the ideal of the equality is the ideal of the mass that content
   ist, [wenn nur keiner mehr hat als der andere],
   is if only nobody more has than the other
   ‘The ideal of equality is the ideal of a population that is content [if only nobody
   has more than the others].’
   (Werner Jaeger. 1944/1973. ‘Platos Gorgias: Der Erzieher als der wahre Staatsman’. In Paideia,
   Vol.2, 704-743. Berlin: de Gruyter.)

   paraphrase: (The ideal of equality is fulfilled in a situation where) [for
   nobody to have more than the others] is an easy means to satisfy
   the masses.

Finally, (555) shows two examples where nur ‘only’ is followed by jeder ‘everyone’.

(555)a. es sind gerade die unterschiedlichen meinungen, die hier den reiz
   it are exactly the differing opinions that here the appeal
   des diskutierens ausmachten, [wenn nur jeder jedem seine
   of the discussing created if only everyone to everyone his
   meinung gelassen hat, ohne persönlich zu werden].
   opinion left has without personally to become
   ‘It was the differing opinions themselves that made discussions interesting here,
   [if only everyone allowed everyone else to have a different opinion without
   making it personal].’
   (online post on www.heute.de, 1/10/2009)
paraphrase: For everyone to allow everyone else to have a different opinion is an easy means to achieve an interesting discussion.

b. **Context:** Quite generally, people refuse to car-share, because they’re convinced that their own car doesn’t make much of a difference.

> [Wenn nur jeder so denkt], haben wir das Fiasko Berufsverkehr
> jeden morgen.
> ‘[If only everyone thinks like that], we already have the work traffic chaos every morning.’

(online post on blogs.emeraldsecret.com, 12/21/2010)

paraphrase: [For everyone to think like that] is an easy means to create catastrophical work traffic every morning.

Examples (553)-(555) witness the existence for such minimal sufficiency readings, but naturally the question arises what exactly is going on here, which is why I will briefly discuss some constructed examples.

First, we can devise an elimination procedure that brings out one or the other reading at a time. Consider the constructed example in (556), which is ambiguous between the two readings, as indicated.

(556) **Wenn nur [zwei] Leute kommen, spielen wir Siedler von Catan.**
> ‘If only two people come, we will play Settlers of Catan.’

a. **ONLY**₁: [If no more than two people come], we will play Settlers of Catan (because all other games require a larger group).

b. **ONLY**₂: [If at least two people come, which is easy to achieve], we will play Settlers of Catan.

The following examples show that we can eliminate one or the other reading by adding discourse particles into the matrix clause. The canonical reading can be blocked by inserting schon (lit. ‘already’) into the matrix clause, (557). (I will discuss schon
‘already’ separately in section 6.2.4.) Similarly, the minimal sufficiency reading can be blocked by inserting *halt eben* (approximately ‘simply’) into the matrix clause, (558).

(557) Wenn nur \([\text{zwei}]\) Leute kommen, spielen wir schon Siedler von Catan.
‘If only two people come, we’ll already play Settlers of Catan.’

\(^{*}\text{ONLY}_1\) / \(\checkmark\text{ONLY}_2\)

(558) Wenn nur \([\text{zwei}]\) Leute kommen, spielen wir *halt eben* Siedler von Catan.
‘If only two people come, we’ll simply play Settlers of Catan.’

\(\checkmark\text{ONLY}_1\) / \(^{*}\text{ONLY}_2\)

We can also show that the two readings are available irrespective of the scope of nur ‘only’, by contrasting *mit nur einer Person* ‘with only one person’ and *nur mit einer Person* ‘only with one person’.

(559) Wenn der Otto nur \([\text{einer}]\) Begleitperson kommt, spielen wir Siedler von Catan.
‘If Otto comes with one guest, we will play Settlers of Catan.’

a. \(\text{ONLY}_1\)： If Otto does not bring more than one guest, we will play Settlers of Catan (because all other games require a larger group).

b. \(\text{ONLY}_2\)： If Otto brings at least one guest, which is easy to achieve, we will play Settlers of Catan.

Again, we can block one of the two readings by means of the above particles.

(560) Wenn der Otto nur \([\text{einer}]\) Begleitperson kommt, spielen wir schon Siedler von Catan.
‘If Otto only comes with one guest, we will play Settlers of Catan.’

\(^{*}\text{ONLY}_1\) / \(\checkmark\text{ONLY}_2\)
(561) Wenn der Otto nur mit [einer]F Begleitperson kommt, spielen wir
if the Otto only with one person comes play we

halt eben Siedler von Catan.
simply Settlers of Catan

‘If Otto only comes with one guest, we will play Settlers of Catan.’

✓ONLY₁ / *ONLY₂

Similarly, we can construct examples where nur ‘only’ is placed PP-internally, i.e. scope
and (narrow) focus are limited to the numeral (e.g. Bayer 1996). Still, both readings are
available.

if the Otto with only one person comes play we

Siedler von Catan.
Settlers of Catan

‘If Otto comes with only one guest, we will play Settlers of Catan.’

a. ONLY₁: [If Otto does not bring more than one guest], we will play Settlers
   of Catan (because all other games require a larger group).

b. ONLY₂: [If Otto brings at least one guest, which is easy to achieve], we will
   play Settlers of Catan.

Once again, schon ‘already’ and halt eben ‘simply’ disambiguate.

if the Otto with only one person comes play we

schon Siedler von Catan.
already Settlers of Catan

‘If Otto comes with only one guest, we will play Settlers of Catan.’

*ONLY₁ / ✓ONLY₂
if the Otto with only one person comes play we

halt eben Siedler von Catan.
simply Settlers of Catan

‘If Otto comes with only one guest, we will play Settlers of Catan.’

\[\text{\textbf{ONLY}_1} / \text{\textbf{*ONLY}_2}\]

Conversely, we can show that both readings of only are compatible with wide sentential
focus on the entire proposition. We can enforce wide focus on the entire clause by
placing jeder ‘everyone’ after nur ‘only’. Once again, both the canonical \text{\textbf{ONLY}_1} reading
and the minimal sufficiency \text{\textbf{ONLY}_2} reading are available; this time, we disambiguate by
means of the continuation. In the naturally occurring example (565a) the intended reading
is an \text{\textbf{ONLY}_2} reading, as witnessed by the presence of schon ‘already’ in the matrix clause.
Contrastively, the constructed example (565b) has an \text{\textbf{ONLY}_1} reading (compatible with
halt eben ‘simply’).

(565)a. Wenn nur [jeder einmal etwas pro Seminareinheit sagt]_F,
if only everyone once something per seminar.unit says
hätte man schon meist zwischen 10-20 Wortmeldungen
had one schon mostly between 10-20 requests.to.speak
‘[If only everyone said one thing per seminar], it would already come to 10-20
contributions.’

(online post on www.aufmaken.at, 02/11/2010)

\textit{paraphrase:} [For everyone to say one thing per seminar] is an \textit{easy means} to
(\text{\textbf{ONLY}_2}) achieve 10-20 contributions.

b. Wenn nur [jeder einmal etwas pro Seminareinheit sagt]_F,
if only everyone once something per seminar.unit says
kommen wir mit unserem Projekt \textit{(halt eben)} nie weiter!
come we with our project simply never further
‘[If only everyone says one thing per seminar], we’ll never make progress on
our project!’

\textit{paraphrase:} [If nothing more happens than everybody saying one thing per
(\text{\textbf{ONLY}_1}) seminar unit] we won’t ever make progress on our project.
It is worth eliminating the scope of *nur* ‘only’ as a possible confound. We have already seen in (559)-(565) that the overt position of *nur* ‘only’ and the size of the focus constituent does not determine whether we get an ONLY1 or ONLY2 reading. Could it be that *nur* ‘only’ projects out of the *if*-clause that it appears in and takes scope over the matrix clause or the entire conditional? Evidence that minimal sufficiency *nur* ‘only’ does not take scope outside of the *if*-clause can is easily established; none of (566b-d) convey the same as (566a).

(566)  a. [Wenn **nur** [zwei]...Leute kommen], spielen wir **schon** Siedler.  
   ‘If only two people come we’ll already play Settlers.’
   \[\approx \text{If at least two people come, which is easily the case, we will play Settlers.}\]

   b. **Nur** [wenn zwei Leute kommen], spielen wir (**schon**) Siedler.  
   ‘Only if two people come, we’ll play Settlers.’
   \[\approx \text{Only if two people come, we will play Settlers.}\]

   c. [Wenn zwei Leute kommen], spielen wir **nur** (**schon**) Siedler.  
   ‘If two people come, we’ll only play Settlers.’
   \[\approx \text{If two people come, we will play nothing but Settlers.}\]

   d. **Nur**, [Wenn zwei Leute kommen, spielen wir (**schon**) Siedler].  
   ‘Only, [If two people come, we’ll already play Settlers].’
   \[\approx \text{The only thing you’re forgetting is: If two people come, we will play Settlers.}\]

We are thus justified in concluding that German *nur* ‘only’ in *if*-clauses allows for two readings, a canonical (negative/exclusive) reading ONLY1 and a (positive) minimal sufficiency reading ONLY2.

6.2.2.2  “Optative Only” is “Minimal Sufficiency Only”

In this section, I argue that optative *only* is an instance of minimal sufficiency *only*, i.e. ONLY2. We have already seen above that an analysis of optative *only* as ONLY1 does not
give rise to the correct meaning. This alone is motivation for assuming that optative \textit{only} is ONLY\textsubscript{2}, i.e. minimal sufficiency \textit{only}, now that we know that such a reading exists. However, we can make stronger arguments that optative \textit{only} is ONLY\textsubscript{2}. The first argument is based on the relative scope with respect to clausal adverbs. The second argument is based on cross-linguistic correlations.

Let us first discuss the scope of \textit{only}. We have seen that \textit{nur} ‘only’ has both the ONLY\textsubscript{1} reading and the ONLY\textsubscript{2} reading in conditional antecedents, irrespective of its scope and of the size of the focus constituent. However, one thing we have not looked at so far is the scope of \textit{nur} ‘only’ with respect to co-occurring sentential adverbs. If we insert \textit{wieder} ‘again’, we observe that ONLY\textsubscript{2}-readings are only possible if \textit{nur} ‘only’ precedes \textit{wieder} ‘again’ and ONLY\textsubscript{1}-readings are only possible if \textit{nur} ‘only’ follows \textit{wieder} ‘again’.

(567) a. Wenn \textit{nur} \textit{wieder} zwei Personen einsteigen, wird das Boot sinken.
   lit. ‘If once again only two persons get into the boat, the boat will sink.’
   b. \checkmark ONLY\textsubscript{1}: If, once again, \textit{no more than} two persons get in, the boat will sink.
   c. \textasteriskcentered \checkmark ONLY\textsubscript{2}: If, once again, \textit{at least} two persons get in, the boat will sink.

(568) a. Wenn \textit{nur} \textit{wieder} zwei Personen einsteigen, wird das Boot sinken.
   lit. ‘If once again only two persons get into the boat, the boat will sink.’
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   c. \checkmark ONLY\textsubscript{2}: If, once again, \textit{at least} two persons get in, the boat will sink.

This pattern is, crucially, reproduced in optatives. Recall that optatives without any of the prototypical particles (\textit{nur} ‘only’, \textit{wenigstens} ‘at least’, \textit{doch} in German) are typically deviant. If optative \textit{only} is ONLY\textsubscript{2}, we predict that optative \textit{only} must precede \textit{wieder} ‘again’. This is indeed the case (see also Rifkin 2000 for similar observations in English).

(569) a. Wenn \textit{nur} \textit{wieder} / \# \textit{wieder nur} zwei Personen einsteigen!
   ‘If only, once again, two people get in!’
b. Wenn nur wieder / # wieder nur zwei Personen eingestiegen wären!
   if only again again only two persons get.in were
   ‘If only, once again, two people had gotten in!’

The second argument that optative only is ONLY₂ is based on cross-linguistic comparison. For now, I will postpone a discussion of English, which I will come to in the next section. We have already seen in chapter 2 that there are some languages that allow for optatives with ‘at least’ but do not allow for optatives with ‘only’. This gives rise to the following interesting prediction. Languages that form optatives with ‘only’ should also (typically) allow for ONLY₂ readings. (English is an exception, as we will see.) Conversely, languages that cannot form optatives with ‘only’ should also disallow ONLY₂ readings. Overall, this is exactly what we find. Consider first a sample of non-ONLY₂ languages.

Brazilian Portuguese, Spanish, Greek and Catalan all disallow for only in optatives. As predicted, none of these languages allows for ONLY₂ readings.

(570)  Brazilian Portuguese

a. Se só/apenas duas pessoas entrarem neste barco, ele vai afundar.
   if only two people enter in-this boat he will sink
   lit. ‘If only two people get on the boat, the boat will sink.’
   ✓ONLY₁: The boat will sink if less than three persons get in.
   *ONLY₂: The boat will sink if more than one person get in.

b. Se ao menos /só/ *apenas o João tivesse ouvido a Maria!
   if at least *only only the John had listened.to the Mary
   ‘If at least / *only John had listened to Mary!’

(571)  Spanish

a. Si solo dos personas se montan en esa barca, se hundira
   if only two people self get on that boat self will sink
   lit. ‘If only two people get on the boat, the boat will sink.’
   ✓ONLY₁: The boat will sink if less than three persons get in.
   *ONLY₂: The boat will sink if more than one person get in.

b. Si (*/solo) Juan hubiera ⟨al menos⟩ escuchado a Maria!
   if *only Juan had.sub.past at least listened to Mary
   ‘If at least / *only John had listened to Mary!’
Inversely, at least a subset of languages (excluding English) that allow for only in optatives can also be shown to have ONLY₂ readings. We have already seen this for German, but it is worth showing that bloß ‘only’ behaves on a par with nur ‘only’, (574).

(574) German

a. Wenn bloß zwei Personen einsteigen, wird das Boot sinken.
   if only two persons get.in will the boat sink
   lit. ‘If just two persons get into the boat, the boat will sink.’  
   \(\text{\checkmark}\text{ONLY}_1 / \text{\checkmark}\text{ONLY}_2\)

b. Wenn Hans bloß auf Maria gehört hätte!
   if Hans only to Maria listened had
   ‘If only Hans had listened to Mary!’

(575) Italian

a. Se solo/solamente due persone salissero su questa barca, affonderebbe
   if only two persons enter in this boat it.will.sink
   lit. ‘If only two persons get into the boat, the boat will sink.’  
   \(\text{\checkmark}\text{ONLY}_1 / \text{\checkmark}\text{ONLY}_2\)

b. Se solo/solamente John avesse ascoltato/ascoltava Maria!
   if only John had listened.to(past.subj/ipv) Mary
   ‘If only John had listened to Mary!’
(576) Lebanese Arabic\textsuperscript{107}

a. iza bass shaxs-ein tel3ou 3a-ha-sh-shaxtoura, b-teghra'  
   if only person-dual got-3p on-this-the-boat, sink.ipfv.3sf  
   lit. ‘If only two persons get into the boat, the boat will sink.’ \(\checkmark \text{ONLY}_1 / \checkmark \text{ONLY}_2\)

b. (Ah,) law kent bass ghani!  
   oh if was.1s only rich  
   ‘If only I were rich!’

(577) Czech

a. Kdy-by jen dva lidi nasedli na tuto lod’, potopila by se.  
   when-subj.3 only two people get(pptc) on this boat sink(pptc) subj self  
   lit. ‘If only two persons get into the boat, the boat will sink.’ \(\checkmark \text{ONLY}_1 / \checkmark \text{ONLY}_2\)

b. Kdy-by jen Honza poslechl Marii!  
   when-subj.3 only Honza listened(pptc) Marie.acc  
   ‘If only John (had) listened to Mary!’

(578) Polish

a. Jeśli tylko dwie osoby wejdą na ten statek, to zatonie.  
   if only two people enter on this ship then sink  
   lit. ‘If only two persons get into the boat, the boat will sink.’ \(\checkmark \text{ONLY}_1 / \checkmark \text{ONLY}_2\)

b. Gdyby / Żeby tylko Jan (po)słuchał Marii.  
   if if only John listen.(perf.)pret.3sg.m Mary.gen.nom.f  
   ‘If only John had listened to Mary!’

(579) Serbian

a. Ako se samo dva čoveka popnu na palubu, brod će potonuti.  
   if self only two man climb on deck ship will sink  
   lit. ‘If only two persons get into the boat, the boat will sink.’ \(\checkmark \text{ONLY}_1 / \checkmark \text{ONLY}_2\)

b. Da je samo Jovan poslušao Mariju!  
   that be.3sg only John listened Mary-acc  
   ‘If only John had listened to Mary!’

\textsuperscript{107}The difference between iza ‘if’ and law ‘if’ is tense/aspect related and should not concern us here.
(580) Norwegian\textsuperscript{108}

a. Dersom \textit{bara} to personer går i denna båten, så synker'n
if only two people get in this boat then sinks’it
lit. ‘If only two persons get into the boat, the boat will sink.’ [\texttt{ONLY\_1 / ONLY\_2}]

b. Om / Hvis han \textit{bare} hadde kjørt litt forttere!
if if he only had driven little faster
‘If \textit{only} he had driven a little faster!’

We thus find a strong correlation between the possibility of \texttt{ONLY\_2} readings in non-optative conditionals and the possibility of \textit{only} in optatives. However, as anyone is bound to notice, English does not comply with this generalization. I will thus address English separately in the following section.

6.2.2.3 English is a language where minimal sufficiency is restricted

In the preceding section, we have established a correlation between the presence of \textit{minimal sufficiency only} in conditionals (also \texttt{ONLY\_2}) and optative \textit{only} in a language. English is a language that appears to blatantly violate this correlation, as shown in (581); while \textit{if-only}-optatives are the core examples of optative constructions in modern English (cf. (581b)), \texttt{ONLY\_2} readings are not generally available.

(581)a. If only two people get into the boat, it will sink.
\texttt{ONLY\_1}: \textit{The boat will sink if less than three persons get in.}
\texttt{ONLY\_2}: \textit{The boat will sink if more than one person get in.}

b. If only John had listened to Mary!

This is puzzling. However, I propose that minimal sufficiency \textit{only} in English has undergone a grammaticization process, where preference-orientation has become part of the lexical entry. While languages like German, Czech, Lebanese Arabic, Polish, Serbian,

\textsuperscript{108} Interestingly, the dominant reading in Norwegian is one where the boat will sink if exactly two people get in. This reading also emerges in Dutch if the word \textit{alleen} ‘only’ is used as a translation for \textit{only}.
Norwegian and Italian employ only₂, as given in (582), English only₂ has become only\textsubscript{OPT}, hardwiring an additional presupposition, as given in (583)\textsuperscript{109}.

(582) a. \[\|\text{only}_2,c\| = \lambda S. \lambda p : \text{MOST} q \in g(C) \left[ q >_S p \right]. \] LOWNESS
   
   “Presupposition: The modified proposition is low on the salient scale.”

   b. \[p\] IDENTIFY
   
   “Truth Conditional Content: only₂ is truth-conditionally vacuous.”

(583) a. \[\|\text{only\textsubscript{OPT}},c\| = \lambda S. \lambda p : \text{MOST} q \in g(C) \left[ q >_S p \right] \land \] LOWNESS

   “Presupposition 1: The modified proposition is low on the salient scale.”

   b. \[S \text{ is a bouletic ordering}.\] BOULETIC
   
   “Presupposition 2: The contextually salient scale is a bouletic scale.”

   c. \[p\] IDENTIFY
   
   “Truth Conditional Content: only\textsubscript{OPT} is truth-conditionally vacuous.”

Motivation for assuming a stricter link between only and optativity in English than in other languages is the fact that English has more or less lost the ability of forming optative clauses without only; in other words only\textsubscript{OPT} has become an obligatory optative marker in English and lost its non-optative uses.

This is supported by the following pattern. While most languages employ more than one strategies of licensing optativity, English can only form optatives by means of only.

(584) a. Ach, wenn ich reich wäre! \textit{German}
   
   b. Wenn ich nur reich wäre!
   
   c. Wenn ich \textit{wenigstens} reich wäre!

   oh if I only at.least rich were

   ‘If only I were (at least) rich!’

(585) a. Ah, law kent ghani! \textit{Lebanese Arabic}
   
   b. law kent \textit{bass} ghani!
   
   c. Ah, law kent \textit{?al a’all} ghani!

   oh if was.1s only on.the least rich.1sm

   ‘If only I were (at least) rich!’

\textsuperscript{109} As we will see, concessive \textit{at least} shares the presupposition (583b), i.e. this is less exotic than appears.
Furthermore, English still has residual only\textsubscript{2} readings, in cases where a positive evaluation is present, as in (588), which seems somewhat idiosyncratic.

(588)  a. It was a remarkable performance, an inspiring example of what the busy man of affairs can really accomplish [if he only applies himself].


b. According to [the American] dream, hard work, discipline and frugality will bring success. Everyone can be a millionaire [if he only applies himself].


c. Jenkins has made it to where he is by his own efforts. It only goes to show what a good Welsh boy can do [if only he applies himself].

(Ken Jones. 1999. “Rugby Union: Jenkins kicks Wales into the reckoning”. The Independent.)

To the extent that an example like (589) has an only\textsubscript{2} reading, a positive evaluation is strongly implied, as indicated by the infelicitous continuation.

(589) If only two people had entered the boat, it would have sunk.

… # which of course I wouldn’t have wanted!

We can thus safely conclude that only\textsubscript{2} in English has undergone a grammaticization process and become inherently preference-oriented / bouletic.

Do we find other languages that behave like English? It may be the case that English is not isolated in its behavior. Languages that allow for only in optatives but do not...
appear to have \textit{ONLY}_2 readings in regular conditionals include Icelandic, Russian, Hebrew and Finnish. However, I would like to briefly discuss Dutch to show that the data sometimes diverge in ways that we currently cannot grasp an understanding of, and that quite possibly involve factors of plausibility and discourse, and maybe prosody, which cannot always be controlled for when eliciting translations and judgments. Example (590a) shows that an \textit{ONLY}_2 reading is unacceptable for many native speakers of Dutch in the test example that I have used (though some native speakers accept an \textit{ONLY}_2 reading in (590a)). Nevertheless, Dutch allows for \textit{only} in optatives without restrictions, (590b).

(590) \textit{Dutch}

a. Als \textit{maar} twee mensen \textit{in} deze boot stappen, zal het zinken.  \\
if only two people in this boat \textit{step} \textit{will} \textit{it} \textit{sink}  \\
lit. ‘If only two persons get into the boat, the boat will sink.’ \begin{array}{c}
\checkmark\textit{\textit{ONLY}_1/\%\textit{ONLY}_2}\end{array}

b. Als Jan (nou) \textit{maar} naar Marie had geluisterd! \\
if Jan \textit{PRT} only/but to Marie had listened \\
‘If \textit{only} John had listened to Mary!’

First of all, the \textit{ONLY}_2 reading seems to emerge if we add additional material, including \textit{al} ‘already’; this does however not entail that an \textit{ONLY}_2 reading is really available, as we will see in our discussion of ‘already’, section 6.2.4.

(591) Als er \textit{maar} twee mensen \textit{in} deze boot stappen, zal het al zinken.  \\
if there only two people in this boat \textit{step} \textit{will} \textit{it} \textit{already} \textit{sink} \\
‘If only two persons get into the boat, it will already sink.’ \begin{array}{c}
\checkmark\textit{\textit{ONLY}_1}/\checkmark\textit{\textit{ONLY}_2}\end{array}

Secondly, and more importantly, if we look beyond this constructed example, we do find cases of Dutch conditionals that seem to contain minimal sufficiency \textit{only}, and these examples are generally accepted by native speakers. How do we find these examples? Consider first the following naturally occurring German example, (592a). An important intuition is that (592a) seems equivalent to the paraphrase in (592b), which uses \textit{as long as} instead of \textit{if only}. Looking for conditionals with such readings is thus a good heuristic to detect \textit{ONLY}_2 readings.
The following four examples are slightly modified versions of natural occurrences (which I found on google)\(^\text{110}\). What we observe in each of these examples seems to be an \textsc{only}_2 reading, as \textsc{only}_1 readings do not seem to make sense in these constructions. In none of the examples is the proposition in the consequent contingent on whether something more than the antecedent proposition happens (in which case it should not follow under an \textsc{only}_1 reading), or not (in which case it should follow under an \textsc{only}_1 reading).

\(^\text{110}\) Glosses and translations are courtesy of Erik Schoorlemmer (p.c.).
b. Het begint met een keertje krabben, en voor je het weet sta je je elk vrij moment het schompes te harken, als maar niemand het ziet! every free moment all over to rake if only nobody it sees ‘It starts out with a little scratch, but before you know what is happening you are scratching yourself all over your body, as long as nobody sees it.’

≠ ?? ‘It starts out with a little scratch, but before you know what is happening you are scratching yourself all over your body, if nothing more happens than that nobody sees it.’ (ONLY₁ reading)

c. Hessing moet zelf weten welk schoonmaakmiddel wordt gebruikt, als maar Hessing must self know which detergent is used if only geen schade wordt aangebracht aan de aluminium goederen in de hal. no harm is done to the aluminium goods in the hall ‘Hessing must know himself which detergent to use, as long as no harm is done to the aluminium goods in the hall.’

≠ ?? ‘Hessing must know himself which detergent to use, if nothing else happens except that no harm is done to the aluminium goods in the hall.’ (ONLY₁ reading)

d. Zoals al eens eerder op het forum was gezegd: als maar as already once before in this forum was said if only iedereen op OSX overstapt komen daar ook wel virussen voor. everybody on OSX change come there too indeed viruses for ‘As has been said before on this forum: as soon as everybody switches to OSX, there will be viruses on that platform as well.’

≠ ?? ‘If nothing else happens but that everybody switches to OSX, there will be viruses on that platform as well.’ (ONLY₁ reading)

We can thus tentatively conclude that Dutch may exhibit ONLY₂ readings after all, but simply not in the constructed example that I discussed above, i.e. we need to be aware of the risk of false negatives when applying our diagnostic for ONLY₂ readings.

Finally, before concluding this section, it is worth exploring the spectrum of only type expressions in English a bit further. We know that German has at least two elements that roughly mean ‘only’, namely nur ‘only’ and bloß ‘only’. We have seen that both of them have an ONLY₁ reading and an ONLY₂ reading (e.g. in examples (552) and (574) above). If
we look beyond only, we discover that English just seems to have both readings as well\textsuperscript{111}. This has been previously observed in Coppock & Beaver (to appear), cf. (594).

(594) **Just** the thought of him sends shivers down my spine.

(Coppock & Beaver to appear)

\begin{itemize}
\item \textbf{ONLY}\textsubscript{1}: *Nothing but the thought of him sends shivers down my spine.*
\item \textbf{ONLY}\textsubscript{2}: *The thought of him (and possibly other things) sends shivers down my spine, and that's something rather minimal.*
\end{itemize}

As shown in (595), just also seems to have \textbf{ONLY}\textsubscript{2} readings (as well as \textbf{ONLY}\textsubscript{1} readings) in conditionals\textsuperscript{112}, we can thus conclude that just may be more typical from a cross-linguistic perspective than only itself.

(595) a. But it does work reasonably well, and if you use it just once, you've saved more than the purchase price. $\Rightarrow$ \textbf{ONLY}\textsubscript{2} reading preferred

(http://www.amazon.com/Paylak-LK6-4-Watch-Sizing-Repair/dp/B0015SHC8Y)

b. One good thing about pu-erh is that you can use the same cake over and over for multiple infusions. If you use it just once, you're wasting tea. $\Rightarrow$ \textbf{ONLY}\textsubscript{1}


c. If just two people get into the boat, it will sink.

\begin{itemize}
\item \textbf{ONLY}\textsubscript{1}: *The boat will sink if no more than two persons get in.*
\item \textbf{ONLY}\textsubscript{2}: *The boat will sink if at least two persons get in, which is not a lot.*
\end{itemize}

In line with the generalization that \textbf{ONLY}\textsubscript{2} can be used in optatives, (596) shows that just can indeed license optatives in English (see also Quirk et al. 1985).

(596) a. Oh, if he just knew how much we miss him!

(= I wish he knew how much we miss him!)

b. Oh, if just once I could be a guest in such a beautiful house!

(= I wish I could once be a guest in such a beautiful house!)

\textsuperscript{111} I thank Liz Coppock for suggesting that just may have a reading similar to what I call a minimal sufficiency reading.

\textsuperscript{112} Some speakers report that the \textbf{ONLY}\textsubscript{2} reading is hard to access in (595c), whereas other speakers find it perfectly natural.
We can thus conclude that languages differ internally as to which *only* type elements have \textit{ONLY}_2 readings and which ones do not.

### 6.2.3 A Generalized \textit{ONLY}_2 for Optatives and Beyond

The plan now is to devise a uniform semantics for *only* in optatives and outside optatives. In this section, I briefly review ideas from the previous literature that indicate that every instance of *only* may be scalar in nature, as assumed in my entries for \textit{ONLY}_1 and \textit{ONLY}_2 above. I then argue that \textit{lowness}, which is the main contribution of \textit{ONLY}_2, cf. (598a), is indeed the main effect of placing *only* in an optative.

\textit{Presupposition 1}: The modified proposition or a higher scalar alternative is true.

\textit{Presupposition 2}: The modified proposition is low on the salient scale.

\textit{Truth Conditional Content}: There is no higher scalar alternative that is true.

\textit{Presupposition}: The modified proposition is low on the salient scale.

\textit{Truth Conditional Content}: *only* is truth-conditionally vacuous.

Traditionally, the distinction between ‘scalar only’ and ‘exclusive only’ (e.g. Altmann 1976, 1978 for German) was used to distinguish between cases like (599a+b), which seem inherently scalar, excluding \textit{higher alternatives}, and (599c), which seem to exclude all alternatives and are thus not scalar.

\textit{Truth Conditional Content}: *only* is truth-conditionally vacuous.

(599a) Sam is only a [detective inspector]. (He is not a detective chief inspector.)

b. I only had [three] cups of coffee. (I didn’t have four cups.)

c. I only saw [Gene]. (I didn’t see anybody else.)
An example that clearly illustrates that scalar, non-exclusive readings exist, and that *only* can be ambiguous between a ‘scalar reading’ and an ‘exclusive reading’ is provided by van Rooy (2002). The statement in (600) would be false under an exclusive reading, but the general intuition is that it is true in the given context, which is evidence for a ‘scalar’ reading of *only* in (600).

(600)  *Context:* We are playing a card game against each other, and the *goal* is to win, and winning depends exclusively on who has the highest card. The king of diamonds is higher than the jack of hearts. You show me the king of diamonds and ask: ‘What do you have?’ Although I have three cards in my hands, I say:

a. **I only have [the jack of hearts]*.  (*⇒ This is the highest card I have*)  
(van Rooy 2002:156)

b. *paraphrase:* I have nothing higher than the jack of hearts.

Conversely, (601) is an example where *only* has an ‘exclusive’ reading, excluding all alternatives.

(601)  *Context:* The children played with our cards and all of the cards are dispersed in the living room. We are searching for the lost cards and you have just found the fourth card since we started. You say that you’ve found four now. I have found a single card; I turn it around to look at it and say:

a. **I only have [the jack of hearts]*.  (*⇒ This is the only card I have*)

b. *paraphrase:* I have nothing except the jack of hearts.

In the recent literature, the view has become progressively accepted that all of the examples in (599)-(601) are scalar and that they merely differ in the type of scale that they select (cf. Jacobs 1983, Bayer 1996, Klinedinst 2004, 2005, Krasikova & Zhechev 2006, Riester 2006, Beaver & Clark 2008). Let me begin with the inherently scalar uses of *only*, in (599a+b). The idea is that (599a) makes use of a non-logical scale, (602b), and (599b) makes use of a totally ordered logical entailment scale, (603b).

(602)a. Sam is only a [detective inspector].

b. *Scale:* ... detective sergeant < detective inspector < detective chief inspector <...
(603)a. I only had \([\text{three}]_F\) cups of coffee.
   
   b. *Scale:* \(0\text{ cups} < 1\text{ cup} < 2\text{ cups} < 3\text{ cups} < 4\text{ cups} < 5\text{ cups} < \ldots\)

For the apparent non-scalar uses, the assumption is that we are dealing with a partially ordered logical entailment scale, as given in (604).

(604)  
   a. I only saw \([\text{Gene}]_F\).
   
   b. \[
   \begin{array}{c}
   \text{Sam + Gene + Ray} \\
   \text{Sam + Ray} & \text{Sam + Gene} & \text{Ray + Gene} \\
   \text{Sam} & \text{Ray} & \text{Gene} \\
   \top
   \end{array}
   \]

If we now assume the lexical entry in (597) for canonical *only*, we always get the right result. Due to its *at least* presupposition, (597a), and its *at most* assertion, (597b), we get the right results for declaratives. Nothing needs to be said for the totally ordered scales, as in (605). In contrast, in the case of partially ordered entailment scales, the exclusiveness of *only* is not directly conveyed, but follows as an entailment of presupposition plus assertion, as in (606d), which derives from (606b) plus (606c).

(605)a. Sam is only a \([\text{detective inspector}]_F\).
   
   b. *(AT LEAST) presupposition:* Sam is at least a detective inspector.
   
   c. *(AT MOST) assertion:* Sam is no more than a detective inspector.

(606)a. I only saw \([\text{Gene}]_F\).
   
   b. presupposition: I saw at least Gene.
   
   c. assertion: I did not see Ray + Gene, Sam + Gene or Sam + Gene + Ray.
   
   d. entailment: I did not see Ray or Sam.
Analyzing the ‘prejacent presupposition’ (cf. Horn 1969) of *only* as an *at least* presupposition derives the fact that the modified proposition is not presupposed in questions if the scale is not an entailment scale (Horn 1969, Geurts & van der Sandt 2004, van Rooy & Schulz 2004, Klinedinst 2005), cf. (607a). With an entailment scale, (607b), every higher alternative entails the modified proposition.

(607)a. Is Sam only a [detective inspector]? \(\not\Rightarrow\) Sam is a detective inspector.
   b. Did you only see [Gene]? \(\Rightarrow\) You saw Gene.

Evidence that so-called ‘exclusive’ readings are also scalar stems from two facts about ‘exclusive’ *only*: First, as Klinedinst (2005) points out, even ‘exclusive’ *only* cannot exclude weaker alternatives (e.g. Rooth 1992:fn.2). (608a) entails (608b), but clearly does not entail (608c).

(608) a. I only saw [Gene, Sam and Ray].
   b. \(\Rightarrow\) I didn’t see Chris and Annie.
   c. \(\not\Rightarrow\) I didn’t see Gene.

Second, ‘exclusive’ uses of *only* trigger the same ‘scalar lowness’ presupposition as the more typical scalar readings, which further supports a view where *only* is always scalar. Klinedinst (2005) shows this with the example in (609). In the given context, (609a) and (609b) should be truth-conditionally equivalent; yet the continuation in (609a) is infelicitous, indicating that *only* conveys some notion of ‘lowness’.

(609) *If the domain of relevant individuals is \{John, Mary, Bill, Alex, Sue, Eric\*\*\*\*\*
   a. The meeting was only attended by [John, Mary and Bill],
      # a surprisingly high turnout.
   b. The meeting was attended by everyone except/but Alex, Sue and Eric,
      a surprisingly high turnout.
   (Klinedinst 2005)"
As this lowness component of *only* is the part that I am mainly interested in, it is worth dwelling on this for a bit longer. First of all, what does it mean to be low on a scale? Secondly, is this a presupposition or an implicature? Thirdly, is this really what we find in the cases of optative *only* and *ONLY* that I am analyzing?

To answer the first question, Klinedinst (2005) shows that lowness is a relative concept; there must be a sufficiently high number of salient alternatives that are higher on the scale, as illustrated in (610a) versus (610b).

(610)  *Mary is an average student*
   a. The average score on the exam was a C. # Mary only got an [A–]F.
   b. The average score on the exam was an A. Mary only got an [A–]F.

(Klinedinst 2005)

To answer the second question, Klinedinst (2005) shows that lowness projects from downward entailing contexts, indicating that it is a presupposition and not an implicature. He argues that a speaker who utters (611b-d) invariably presupposes that Cal State is low on a scale (here: a scale that measures the prestige of different universities according to the speaker), as in the baseline example, in (611a). Therefore, lowness must be a presupposition. (These are Klinedinst’s examples.)

(611)  a. John only got his BA from [Cal State]F.
   b. No faculty member here only graduated from [Cal State]F.
   c. John doubts that Bill only graduated from [Cal State]F.
   d. Did Bill only graduate from [Cal State]? (I thought he was an excellent student in high school/that his parents were very rich)

(Klinedinst 2005)

To answer the third question, I argue that *only* in optatives (and minimal sufficiency conditionals) fulfills exactly this purpose: To mark that the modified proposition is low on some relevant scale, which seems to correspond to an effort scale or desirability scale – in other words, it is relatively easy to achieve, as compared to salient alternatives. More
concretely, I propose that if I exclaim (612a) or (612b), I always presuppose that (612c) holds in the present context. (See also Biezma 2011ab, who has a similar view.)

(612) a. If only I had a Porsche!
   b. If only I had a car!
   c. … this is all I need to be satisfied, i.e. I need nothing that’s even better (such as a Porsche with special equipment, etc)

The fact that the denoted proposition must be good enough to satisfy my needs follows from the semantics of the exclamation operator EX, repeated in (613).

(613) For any scale $S$ and proposition $p$, interpreted in relation to a context $c$ and assignment function $g$,

an utterance EX($S$)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

“EX expresses an emotion that captures the fact that $p$ is higher on a (speaker-related) scale $S$ than all contextually relevant alternatives $q$ below a contextual threshold.”

where THRESHOLD($c$) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale $S$.

Evidence for such a good enough requirement stems from the following contrast. If I need a Porsche, I cannot exclaim an optative that settles for less. (Included are the descriptive statistics of a brief survey to establish this contrast.)

(614) Context: I want to attend a famous, lavish ball, where many celebrities show up. It is unfashionable to arrive at the ball in anything less than a Porsche. I don't even have a car. When I look out of the window, I see my neighbor's Porsche. I exclaim the following.

a. Oh, if only I also had a Porsche!   (mean$_{1-5} = 4.39$, sd = 0.78, n = 18)
   b. # Oh, if only I also had a car!   (mean$_{1-5} = 3.06$, sd = 1.43, n = 18)

Evidence that if-only-optatives in English convey that I do not want more than what I desperately need follows can be construed from the examples in (615) and (616). (615b) is marked due to the fact that a Porsche is more than what I need to be satisfied in the
current context. Similarly, (616b) is marked, as the context is such that $1000 is perfectly satisfactory and a million is much more than what I need.

(615) \textit{Context: I need to get from Boston to Providence as quickly as possible. To do so, I need a car. Unfortunately I do not own a car. My neighbors have a car, but it's a Porsche, so they wouldn't lend it to me. I exclaim the following.}

a. Oh, if only I owned a car! \hspace{1cm} (mean_{1,5} = 4.46, \text{ sd } = 0.88, \text{ n } = 13)
b. # Oh, if only I owned a Porsche! \hspace{1cm} (mean_{1,5} = 2.54, \text{ sd } = 1.20, \text{ n } = 13)

(616) \textit{Context: I want to attend a famous, lavish ball, where many celebrities show up. The admission fee is $1000 and I'm currently broke. On the evening of the ball, I get really frustrated; when I see my neighbors leaving for the ball, I exclaim the following.}

a. Oh, if only I had a thousand dollars! \hspace{1cm} (mean_{1,5} = 4.31, \text{ sd } = 0.86, \text{ n } = 13)
b. # Oh, if only I had a million dollars! \hspace{1cm} (mean_{1,5} = 2.46, \text{ sd } = 1.13, \text{ n } = 13)

Examples like (617) initially appear to challenge the generalization that my analysis captures. However, at closer inspection, they are fully compatible with it. Given human nature, there is always something better that we can imagine, and the scalar presupposition of only merely needs to hold with respect to a contextually determined set of alternatives.

(617) a. If only I were the richest man in the world! (⇒ I don’t want more than that.)
   b. If only I were God! (⇒ I don’t want more than that.)

To support my analysis, let me briefly review evidence that the availability of an only$_2$ reading in conditional antecedents is independent from the choice of scale.

First, consider an example of a partially ordered logical entailment scale in (618). As indicated, a minimal sufficient reading is available here$^{113}$.

\begin{flushleft}
\text{Naturally, as in English, an only$_1$ reading is also available, cf. (i).}
\end{flushleft}
\begin{itemize}
  \item \textbf{i.} If he’s only using his [right] hand, he won’t achieve much.
\end{itemize}

\footnote{113}{Naturally, as in English, an only$_1$ reading is also available, cf. (i).}
(618)a. Context: John has dry skin on both of his hands, so he decided not to do the gardening. As the weeds are starting to take over, he decides to do the gardening, but using only his right hand. That’s fine, because...

Wenn er nur seine [rechte] Hand verwendet, wird er (schon) viel erreichen.

‘If he’s only using his right hand, he’ll already get a lot done.’

b. scale:         both hands
          left hand  right hand

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c. paraphrase: If John uses at least his [right] hand, which is easy to achieve, he’ll already make a lot of progress.

Similarly, a totally ordered entailment scale allows for a minimal sufficiency reading, illustrated for German\(^{114}\).

(619)a. Context: You are planning to tour Italy and you have three days to see Rome. You ask me for advice on where to go. I respond:

Wenn du nur [drei] Tage in Rom verbringst, wirst du (schon) viel erleben.

‘If you only spend three days in Rome, you’ll already experience a lot.’

b. scale: ... < two days < three days < four days < five days < ...

c. paraphrase: If you spend at least [three] days in Rome, which is not much, you’ll make a lot of nice experiences.

Finally, consider a case of a pragmatic scale. Once again, a minimal sufficiency reading is available\(^{115}\).

\(^{114}\) Again, an ONLY\(_1\) reading is available as well, cf. (ii).

\(^{115}\) ii. If you only spend [three] days in Italy, you won’t see much.
Context: John got his BA from a community college, and he’s in doubt whether it will be any good for his future career.

Wenn er seinen BA nur von einem Community College bekommen hat, wird er (schon) viel erreichen.

‘If he only received his BA from a community college, he’ll already achieve a lot.’

b. scale: … < community college < Cal State < UCLA < …

c. paraphrase: If John got his BA at least from a [community college], which is easily achieved, he’ll already achieve a lot in his life.

We can conclude that the availability of a minimal sufficiency (ONLY₂) reading is independent from the choice of scale, i.e. a uniform approach to only is possible, which posits both ONLY₁ and ONLY₂ as separate entries for only, independent from the scale that they combine with.

6.2.4 Why ONLY₂ is not Op + ONLY₁

A predecessor of my ONLY₂ is Guerzoni’s (2003) only₂, which was posited to account for German auch nur ‘even’ (lit. ‘also only’) constructions. A question that arises at this point is whether minimal sufficiency only in conditionals is an instance of ONLY₁ in the scope of a higher operator. Specifically, there are two construction types that we may suspect to underlie ONLY₂ readings, like (621a) – the relevant ONLY₂ paraphrase seems equivalent to the meaning that arises from even + only, as in (621b-d), and to the meaning that arises from already + only, as in (621e).

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115 Contrast this with an ONLY₁ reading, as given in (i).
   i. If John only got his BA from [a community college], he’ll have a hard time getting into a good PhD program.

116 It is not clear whether ONLY₂ shares the at least component of ONLY₁ or the at most component of ONLY₁ in any way. As far as the current empirical scope is concerned, no notion of exclusivity or exactly seems to be conveyed by ONLY₂.
Wenn nur zwei Personen einsteigen, wird das Boot sinken.  
if only two persons get in will the boat sink  
lit. ‘If only two persons get into the boat, the boat will sink.’

paraphrase of ONLY_2 reading: ‘It only takes two people to sink this boat.’

Selbst wenn nur zwei Personen einsteigen, wird das Boot sinken.  
even if only two people get in will the boat sink  
‘Even if only two persons get into the boat, the boat will sink.’

Sogar wenn nur zwei Personen einsteigen, wird das Boot sinken.  
even if only two people get in will the boat sink  
‘Even if only two persons get into the boat, the boat will sink.’

Auch wenn nur zwei Personen einsteigen, wird das Boot sinken.  
also if only two people get in will the boat sink  
‘Even if only two persons get into the boat, the boat will sink.’

Schon wenn nur zwei Personen einsteigen, wird das Boot sinken.  
already if only two people get in will the boat sink  
‘Even if only two persons get into the boat, the boat will sink.’

The question that needs to be asked is whether ONLY_2 constructions always involve some additional null operator (corresponding even or already), and more specifically, whether ONLY_2 readings could compositionally derive from ONLY_1 and such a null operator. This would possibly entail that optatives always contain a null operator amounting to even or already, which would be an important insight into the semantics of optatives. I will address this issue in the present section and argue that there is evidence that ONLY_2 readings are not contingent on some additional operator in the clause. While optatives cannot contain an overt even or already operator, (622)+(623), I argue that they do not contain a covert variant thereof either.

Wenn ich nur reich wäre!  
if I only rich were  
‘If only I were rich!’

Selbst / Sogar / Auch / Schon wenn ich nur reich wäre!  
even / even / also / already if I only rich were  
‘Even / Already if only I were rich!’
6.2.4.1 Why *Only*₂ is not *Even + Only*₁

In this section, I will explore the *even-if-only* hypothesis, which can be stated as follows: Minimal sufficiency conditionals contain canonical *only* (my *ONLY*_₁ above) in the scope of a covert *even* type operator. By extension, the *even-if-only* hypothesis posits that optatives with *only*, which I have argued to share properties of minimal sufficiency conditionals, contain canonical *only* in the scope of a covert *even* type operator. This may entail that all optatives contain a covert *even* type operator.

Initial motivation for such an approach stems from the fact that *ONLY*_₂ type readings can be emulated in English (which does not have a designated *ONLY*_₂ use of *only*) by placing canonical *only* (*ONLY*_₁) into the scope of *even*. This is illustrated in (624). Example (624a) without *even* does not allow for a minimal sufficiency reading in English (as opposed to other languages such as German), whereas (624b) with an overt *even* does allow for a minimal sufficiency reading. So, the question is whether the apparent existence of *ONLY*_₂ in German-type languages is an artifact of placing *ONLY*_₁ into the scope of *EVEN*.

(624)  a. If only two people get into this boat, it will sink.
      ✓ ‘If less than three people get into this boat, it will sink.’
      # ‘If at least two people get into this boat, it will sink.’

       b. Even if only two people get into this boat, it will sink.
          ✓ ‘If at least two people get into this boat, it will sink.’  (≈ *ONLY*_₂)

To proceed, I first briefly review a recent analysis of *even-if*-conditionals (see Rawlins 2008 and references therein), namely Guerzoni & Lim (2007). I then show that neither minimal sufficiency conditionals nor optatives seem to be lend themselves to an analysis as *even-if*-conditionals.

Guerzoni & Lim (2007) focus on Pollock’s (1976) observation that there are two types of *even-if*-conditionals, as given in (625). So-called ‘introduced-if’ conditionals,
like (625a), imply the truth of their consequent, whereas so-called ‘standing-if’ conditionals, like (625b) do not.

(625)a. Even if the bridge were standing I wouldn’t cross. ‘introduced-if’
    b. Even if John drank [\textit{F} one ounce] of whiskey she would fire him. ‘standing-if’
      (Guerzoni & Lim 2007, from Bennett 1982)

Guerzoni & Lim construct a more minimal pair, which is given in (626).

(626) a. Even if his relatives visit, he will feel miserable ‘introduced-if’
               \(\checkmark\) let alone if they don’t, \#but if they don’t he’ll be happy
               \(\Rightarrow\) He will feel miserable no matter what.
   b. Even if ONE of his relatives visits, he will feel miserable ‘standing-if’
               \(#\) let alone if they don’t, \(\checkmark\) but if they don’t he’ll be happy
               \(\not\Rightarrow\) He will feel miserable no matter what.
               (Guerzoni & Lim 2007:fn.1)

It can be shown easily that the minimal sufficiency construction that we are interested in falls into the ‘standing-if’ category, as it does not imply the truth of the consequent; example (627a) can be successfully followed up by (627b) (and not by (627c)).

(627) a. Even if only two people get into this boat, it will sink.
   b. … \(\checkmark\) but, of course, if only one person gets into this boat, it will stay afloat
   c. … \(#\) let alone if they don’t.
      \(\not\Rightarrow\) The boat will sink no matter what.

Example (628b) makes an analogous point for minimal sufficiency conditionals without even.

(628) a. Wenn \textit{nur} zwei Personen einsteigen, wird das Boot sinken.
        if only two persons get\textit{in} will the boat sink
        \textit{lit.} ‘If only two persons get into the boat, the boat will sink.’
        paraphrase of \textit{ONLY}_2 reading: ‘It only takes two people to sink this boat.’
b. … also darf nur eine Person einsteigen.
   so may only one person get.in
   ‘Therefore, only one person may get in.’

\[ \not \Rightarrow \] The boat will sink no matter what.

We have thus learned that we should compare ONLY\textsubscript{2} constructions and only-optatives to ‘standing-if’ conditionals (which do not imply the truth of the consequent), and we can henceforth disregard ‘introduced-if’ conditionals (which do imply the truth of the consequent). We observe, in accordance with what Guerzoni & Lim observe for ‘standing-if’ conditionals, that the implicature of minimal sufficiency constructions is that any number of people higher than two will cause the boat to sink in (627)+(628), i.e. only two is the smallest amount of people that will suffice to sink the boat.

On the theoretical side of things, Guerzoni & Lim argue that ‘introduced-if’ conditionals involve verum focus, whereas ‘standing-if’ conditionals involve focus on an overt focus constituent. We will thus be concerned with the latter. Guerzoni & Lim’s analysis of even assumes that it is a propositional operator, which quantifies over focus alternatives (following Rooth 1985, 1996); furthermore, even is truth-conditionally vacuous and merely introduces two presuppositions, one of which is scalar, and one of which is additive. The meaning of even, (629), is illustrated in (630).

(629) \[ ||\text{even}|| (C)(p)(w) \text{ is defined iff} \]
\[ \exists q \in C \ [q \neq p \ & q(w) = 1] \] ADDITIVITY
   “Presupposition 1: There is another true focus alternative.”
\[ \forall q \in C \ [q \neq p \rightarrow p < \text{likely/expected} \ q] \] SCALARITY
   “Presupposition 2: The modified proposition is the most unlikely alternative.”
If defined, then \[ ||\text{even}|| (C)(p)(w) = P(w) \] ASSERTION
   “Truth Conditional Content: even is truth-conditionally vacuous.”
(Guerzoni & Lim 2007, paraphrases are mine)

(630) a. Gil invited even \[ F \text{ Mac}. \]

b. Assertion: Gil invited Mac.
c. **Scalar Presupposition:** Mac was the least likely (most noteworthy) person among the contextually salient people for Gil to invite.

d. **Existential Presupposition:** Gil invited at least one contextually salient person other than Mac.

(Guerzoni & Lim 2007)

Guerzoni & Lim assume, following Lycan (1991, 2001), that *even* takes scope over the entire conditional. This is supported for German by the observation that *even* type elements must be left-peripheral (whereas *already*, which I discuss in the next section, can be medial in the matrix clause). Consider first three equivalents of English *even* in (631a), (632a) and (633a). As indicated, *sogar* ‘even’ in (631b) and *selbst* ‘even’ in (632b) cannot be placed clause-medially in the matrix clause. Example (633) with additive *auch* ‘even’ is less clear, though, as indicated, it is not evident that (633b) and (633a) are equivalent as they stand.

(631) a. **Sogar** wenn *nur* zwei Personen einsteigen, wird das Boot sinken.
   > even if only two persons get.in will the boat sink
   > ‘Even if only two people get in, the boat will sink.’

    b. #Wenn *nur* zwei Personen einsteigen, wird das Boot **sogar** sinken.
    > if only two persons get.in will the boat even sink

(632) a. **Selbst** wenn *nur* zwei Personen einsteigen, wird das Boot sinken.
   > self if only two persons get.in will the boat sink
   > ‘Even if only two people get in, the boat will sink.’

    b. #Wenn *nur* zwei Personen einsteigen, wird das Boot **selbst** sinken.
    > if only two persons get.in will the boat self sink

(633) a. **Auch** wenn *nur* zwei Personen einsteigen, wird das Boot sinken.
   > also if only two persons get.in will the boat sink
   > ‘Even if only two people get in, the boat will sink.’

    b. #Wenn *nur* zwei Personen einsteigen, wird das Boot **auch** sinken.
    > if only two persons get.in will the boat also sink
In sharp contrast, (634b) and (634a) are roughly equivalent; I will discuss these in the next section.

(634) a. Schon wenn nur zwei Personen einsteigen, wird das Boot sinken.
   already if only two persons get.in will the boat sink
   ‘Already if only two people get in, the boat will sink.’

   b. Wenn nur zwei Personen einsteigen, wird das Boot schon sinken.
   if only two persons get.in will the boat already sink
   ‘If only two people get in, the boat will already sink.’

Having thus corroborated Guerzoni & Lim’s view that even takes scope over the entire conditional, we can look at the next step in their analysis. Guerzoni & Lim assume that even-if-conditionals of the type that interest us exhibit focus on the number word (a degree expression in their analysis). They derive the following analysis. First, the focus alternatives in (635b) are generated, and then the meaning of even in (629) is applied, as in (636).

(635) a. Even if John drank \([F\text{ one ounce}]\) of whiskey she would fire him.

   b. focus alternatives:
      \{that if John drank one ounce of whiskey she would fire him,
      that if John drank one and half ounce of whiskey she would fire him,
      that if John drank two ounces of whiskey she would fire him
      that if John drank a pint of whiskey she would fire him,...\}
      (slightly adapted from Guerzoni & Lim 2007, emphasis mine)

(636) a. **Assertion:** If he drank one ounce of whiskey she would fire him.

   b. **Existential Presupposition:**
      \[\exists q [q \in (635b) \& q \neq \{\text{if John drank one ounce of whiskey she would fire him}\} \& q(w) =1]\]

   c. **Scalar Presupposition:**
      It is less likely that she would fire John if he drank one ounce of whiskey than if he drank any other amount of whiskey.
      (slightly adapted from Guerzoni & Lim 2007, emphasis mine)
Let us see how this translates to *even-if*-conditionals that contain *only*. Can we assume that both *even* and *only* co-associate with focus on ‘two’ in (637a) and thus derive the fact that (637a) seems equivalent to (637b)? As it stands, Guerzoni & Lim’s (2007) proposal requires the focused numeral to be the lowest element on the scale, which is clearly not given in (637a). In their footnote 11, they suggest that in cases like (638) *even* associates with focus on *exactly/only* and generates focus alternatives based on elements of a semantically similar type.

(637)  

a. Even if only [two]_F people get into this boat, it will sink.

b. If at least [two]_F people get into this boat, it will sink.

(638) Even if John drinks exactly/only one ounce of whiskey she would fire him.

(Guerzoni & Lim 2007)

For the sake of the argument, let us assume that this is right, and use *not more than* as a logical equivalent for *only* (an intended simplification). We then generate the focus alternatives in (639), and by virtue of (629), generate the meaning in (640) for (637a).

(639)  

{that if no more than two people get into this boat, it will sink,
that if more than two people get into this boat, it will sink}

(640)a. **Assertion:** If no more than [two]_F people get into this boat, it will sink.

b. **Existential Presupposition:**

∃q [q ∈ (640b) & q ≠ {if no more than two people get into this boat, it will sink} & q(w) =1]

c. **Scalar Presupposition:**

It is less likely that the boat will sink if less than three people (= no more than two) get in than if at least three people (= more than two) get in.
Clearly, the analysis in (640) does not quite capture the meaning of (637a), under which it is equivalent to (637b). However, I assume that the meaning of (637a), paraphrased in (637b) is derived from (640) by virtue of a scalar implicature, as sketched in (641).

(641) If no more than \([two]_F\) people get into this boat, it will sink.

\[\Rightarrow_{\text{implicates}} \quad \text{If at least } [two]_F \text{ people get into this boat, it will sink.}\]

Such a scalar implicature follows from scale reversal in the antecedents of conditionals (cf. von Fintel 1999, as discussed by Guerzoni & Lim 2007); (642a) entails (642b) – therefore, for the speaker to state (642b) instead of (642a) gives rise to a standard scalar implicature that (642a) is false, deriving (641).

(642) a. If less than two people get into this boat, it will sink.
   b. \[\Rightarrow \text{If less than three people get into this boat, it will sink.}\]

This seems to approximate the right result for English even-if-only conditionals. I will not be concerned with a refinement of this analysis, as I now wish to evaluate whether this is the right analysis for ONLY\textsubscript{2} readings without even, and for only-optatives.

The core argument against an even-if-only approach to ONLY\textsubscript{2} and optative only stems from the following observation. The possible scope and focus of canonical only and optative only differs as follows. While optative only can combine with broad sentential focus, (643a), canonical only is more constrained, as shown in (643b). It is plausible that only in (643a) uses a pragmatic scale or a partially ordered entailment scale, as in (643c), where all contextually salient propositions are relevant alternatives. While we do not currently understand why canonical only cannot combine with the scale in (643c)\textsuperscript{117}, it is evident from the ill-formedness of (643b) that such a constraint holds.

(643) a. If only nobody had more than everyone else!
   b. # Only nobody has more than everyone else.

\textsuperscript{117} The inability of ONLY\textsubscript{1} to combine with such a scale may be due to its exclusive component, though it is not clear how we can derive this.
Moving on to languages that employ $\text{ONLY}_2$, we have seen that $\text{ONLY}_2$ can also combine with sentential focus, shown in (644a); crucially, *even-if-only* constructions disallow for this, (644b-d), which indicates that they employ $\text{ONLY}_1$, and corroborates that $\text{ONLY}_2$ does indeed exist separately from $\text{ONLY}_1$.

(644)a. Wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
   ‘If only nobody has more than the others, they are content.’

   b.* **Selbst** wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
   ‘Even if only nobody has more than the others, they are content.’

   c.* **Sogar** wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
   ‘Even if only nobody has more than the others, they are content.’

   d.* **Auch** wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
   ‘Even if only nobody has more than the others, they are content.’

Notably, this argument carries over to English. If a combination of *even* and canonical *only* gave rise to a true $\text{ONLY}_2$ reading, as observed in (644a) (and presumably in the optative in (645a)), then (645b) should be grammatical, contrary to fact.

(645)  

   a. If only nobody had more than everyone else!

   b.* Even if only nobody had more than everyone else, people would be content.

These observations support a view where $\text{ONLY}_2$ does exist as a separate element, whereas *even* + *only* configurations may always involve $\text{ONLY}_1$ - illustrated in (646).
In turn, these data support a view where there is no covert *even* type operator in minimal sufficiency conditionals or optatives. In the following section, I will turn to a more serious concern, which amounts to a second type of reductionist approach: Could it be that *ONLY*₂ readings derive from a combination of *ONLY*₁ and ‘marginality *already*’?

6.2.4.2 Why *Only*₂ may not be *Already* + *Only*₁

In the preceding section, we have seen that there are good arguments against treating *ONLY*₂ as a compositional result of combining *ONLY*₁ and *EVEN*. The core argument was based on the fact that *ONLY*₂ can combine with wide sentential focus, (647a), whereas *ONLY*₁, which plausibly co-occurs with *even* type elements shows restrictions on doing so, (647b), especially in combination with *even*. What we see in (647c) is that clauses with *schon* ‘already’ and minimal sufficiency *only* are however well-formed; (647c) and (647d) are roughly equivalent. The questions that emerge can be stated as follows. First, what is the semantics of *schon* ‘already’ in such minimal sufficiency conditionals? Second, could it be that apparent *ONLY*₂ readings are a consequence of placing *ONLY*₁ in a conditional that also contains *already*? Third, could it be that (647a) (and optatives clauses with *only*) contains a covert *already* combined with canonical *ONLY*₁? As I show below, this concern is much more serious than the concern raised in the preceding section.

(647)a. Wenn nur keiner mehr hat, sind sie zufrieden.
   if only nobody more has are they content
   ‘If only nobody has more, they are content.’
b.* Selbst / Sogar / Auch wenn nur keiner mehr hat, sind sie zufrieden.
  even even also if only nobody more has are they content
  ‘Even if only nobody has more, they are content.’

c. Schon wenn nur keiner mehr hat, sind sie zufrieden.
  already if only nobody more has are they content
  ‘Already if only nobody has more, they are content.’

d. Wenn nur keiner mehr hat, sind sie schon zufrieden.
  if only nobody more has are they already content
  ‘If only nobody has more, they are already content.’

As we have seen above, schon ‘already’ is nearly always possible in minimal sufficiency conditionals. I will now review evidence that suggest that schon ‘already’ may be an obligatory component in minimal sufficiency conditionals (either overtly or covertly) and raise some issues for drawing this conclusion. The next section will then discuss the meaning of schon ‘already’ and how we can make sense of the patterns that we observe herein.

First of all, strong evidence that minimal sufficiency only may always involve already stems from cases of minimal sufficiency conditionals in which schon ‘already’ is indeed obligatory, (648). Interestingly, these are cases where the minimal sufficiency if-only-clause is right-peripheral. So, if there are cases where schon ‘already’ is obligatory for a minimal sufficiency reading, should we conclude that minimal sufficiency only always combines with a (possibly covert) already?

(648)a. Ich freue mich \(^2\#(\text{schon})\), [wenn mir nur jemand sagt, dass er mich mag].
  I please me schon if me only someone says that he me likes
  ‘I’m already happy if only someone tells me that he likes me.’
  MSC reading \(\approx\) I’m already happy if someone tells me that he likes me, which is not much to ask for.

b. Es ist \(^2\#(\text{schon})\) schlecht, [wenn es nur ein paar Minuten regnet].
  it is schon bad if it only a few minutes rains
  ‘It’s already bad if it only rains for a few minutes.’
  MSC reading \(\approx\) It’s already bad if it rains briefly, which happens quite easily.
MSC reading ≈ It would have already made me happy if you had written me one letter, which is not much to ask for.

I would like to challenge such a conclusion with two pieces of evidence. First, the facts in (648) are counterbalanced by the observation that minimal sufficiency conditionals allow for conditional inversion, but disallow it in the scope of schon ‘already’, so not all ONLY$_2$-containing conditionals allow for overt schon ‘already’ to be in a position above ONLY$_2$. Example (649) shows the baseline examples without conditional inversion; (650) shows that minimal sufficiency only is possible in a V1-antecedent with schon ‘already’ medial to the matrix clause, (650a), but not with schon ‘already’ clause-initial, (650b). (We cannot test these cases for right-peripheral antecedents, as these are marked in such constructions, cf. Reis & Wöllstein 2010.) If minimal sufficiency only always emerged as an occurrence of ONLY$_1$ in the scope of already, the unacceptability of (650b) should be puzzling. There is no evident reason why (650a) and (650b) should not be equivalent (in the same way in which (649a) and (649b) are equivalent).

(649) a. Wenn er mich nur angerufen hätte, wäre ich schon zufrieden.
   if he me only called had were I already content
   ‘If he had only called me, I would already be content.’

   b. Schon wenn er mich nur angerufen hätte, wäre ich zufrieden.
      already if he me only called had were I content
      ‘Already if he had only called me, I would be content.’

(650) a. Hätte er mich nur angerufen, wäre ich schon zufrieden.
      had he me only called were I already content
      ‘Had he only called me, I would already be content.’

   b. *Schon hätte er mich nur angerufen, wäre ich zufrieden.
      already had he me only called were I content
      ‘Already had he only called me, I would be content.’
A second piece of evidence against the strong hypothesis that minimal sufficiency conditionals always involve schon ‘already’ stems from examples such as (651). While (651) clearly contains minimal sufficiency nur ‘only’, schon ‘already’ seems impossible in any of the conceivable positions.

(651) es sind (#schon) gerade die unterschiedlichen meinungen, die hier it are schon exactly the differing opinions that here (#schon)den reiz des diskutierens ausmachten, (#schon) [wenn nur schon the appeal of the discussing created schon if only jeder jedem seine meinung gelassen hat, ohne persönlich everyone to everyone his opinion left has without personally zu werden].

to become

‘It was the differing opinions themselves that made discussions interesting here, [if only everyone allowed everyone else to have a different opinion without making it personal].’

We can thus conclude that there is evidence that schon ‘already’ may be obligatory (overtly or covertly) in minimal sufficiency conditionals, but there is also evidence against such a view.

Let us consider another piece of evidence. We notice that minimal sufficiency readings can be made available in Portuguese, a non-ONLY₂ language, by means of inserting ja ‘already’.

(652) a. Se só/apenas duas pessoas entrarem neste barco, ele vai afundar. Port. if only two people enter in this boat he will sink
lit. ‘If only two people get on the boat, the boat will sink.’

✓ The boat will sink if less than three persons get in.
* The boat will sink if more than one person get in.

b. Se só/apenas duas pessoas entrarem nesse barco, ele já afunda. if only two people enter in this boat he already sinks
lit. ‘If only two people get on the boat, the boat will sink.’

✓ The boat will sink if more than one person get in.

118 This is a modification of a naturally occurring online post on www.heute.de, from 1/10/2009.
This is a striking observation, which may suggest that ONLY$_2$ is a result of combining ONLY$_1$ with *already*. However, if we look past Portuguese, there is good evidence against drawing such a conclusion. First of all, in Spanish, *ya* ‘already’ barely improves the relevant construction, (653).

(653) **Spanish**

a. Si [solo] dos personas se montan en esa barca, se hundira
   if only two people self get on that boat self will.sink
   *lit. ‘If only two people get on the boat, the boat will sink.’ (✓ONLY$_1$ / *ONLY$_2$)

b. ??Si [solo] dos personas se montan en esa barca, [ya] se hundira
   if only two people self get on that boat already self will.sink
   *lit. ‘If only two people get on the boat, the boat will already sink.’ (*?ONLY$_2$)

In Greek, *idhi* ‘already’ requires a change in tense and aspect and only yields a slight improvement as well, (654).

(654) **Greek**

a. An [mono] dhio anthropi anevun s’afte to plio, tha vuliaksi.
   if only two people enter on-this the boat fut sink
   *lit. ‘If only two people get on the boat, the boat will sink.’ (✓ONLY$_1$ / *ONLY$_2$)

b. ??An [mono] dhio anthropi anevenan, to plio iche [idhi] vuliaksi
   if only two people got-on(impf), the ship had already sunk
   *lit. ‘If only two people got on the boat, the boat had already sunk.’ (*?ONLY$_2$)

Finally, in Catalan, *ja* ‘already’ does not improve the respective construction at all, (655).

(655) **Catalan**

a. Si [només] pugen dues persones en aquesta barca, s’enfonsarà.
   if only get.in two people on that boat self.will.sink
   *lit. ‘If only two people get on the boat, the boat will sink.’ (✓ONLY$_1$ / *ONLY$_2$)

b. ??*Si [només] pugen dues persones en aquesta barca, [ja] s’enfonsarà.
   if only get.in two people on that boat already self.will.sink
   *lit. ‘If only two people get on the boat, the boat will already sink.’ (*?ONLY$_2$)
This suggests that Portuguese *ja* ‘already’ may have a special status of containing an *even* component that Spanish *ya* ‘already’, Greek *idhi* ‘already’ and Catalan *ja* ‘already’ lack.

A language that seems to behave like Portuguese may be Czech, even though it is an ONLY₂ language. What is interesting about Czech is that different complementizers license minimal sufficiency *only* to a different extent. While *kdyby* ‘if(subj)’ is perfectly fine with ONLY₂, *jestli* ‘if’ disallows this reading, and *když* ‘if’ / *pokud* ‘if’ only marginally allow for it.

(656) Czech

a. Kdy-by *jen* dva lidi nasedli na tuto lod’, potopila by se.
   *if-subj* only two people get(pptc) on this boat sink(pptc) subj self
   *lit.* ‘If only two people got into this boat, it would sink.’  ✓ONLY₁ / ✓ONLY₂

b. Jestli *jen* dva lidi nasednou na tuto lod’, potopi se.
   *if only two people get(prpf) on this boat sink(prpf) self
   *lit.* ‘If only two people get into this boat, it will sink.’  ✓ONLY₁ / *ONLY₂

c. Když *jen* dva lidi nasednou na tuto lod’, potopí se.
   *if only two people get(prpf) on this boat sink(prpf) self
   *lit.* ‘If only two people get into this boat, it will sink.’  ✓ONLY₁ / ?ONLY₂

d. Pokud *jen* dva lidi nasednou na tuto lod’, potopí se.
   *if only two people get(prpf) on this boat sink(prpf) self
   *lit.* ‘If only two people get into this boat, it will sink.’  ✓ONLY₁ / ?ONLY₂

This contrast completely disappears if we insert *už* ‘already’, which uniformly makes available an ONLY₂ reading. This suggests that ‘already’ can sometimes give rise to an ONLY₂ reading that would not otherwise be available. At the same time we can only explain the contrasts in (656) and lack thereof in (657) if we assume that (656a) contains *true* ONLY₂, whereas (657b-d) are instances of ONLY₁, where *already* has coerced an ONLY₂-like reading.

(657) Czech

a. Kdy-by *jen* dva lidi nasedli na tuto lod’, *už* by se potopila.
   *if-subj* only two people get(pptc) on this boat already subj self sink(pptc)
   *lit.* ‘If only two people got into this boat, it would sink.’  #ONLY₁ / ✓ONLY₂
b. Jestli jen dva lidi nasednou na tuto lod’, už se potopí.
   if only two people get(prpf) on this boat already self sink(prpf)
lit. ‘If only two people get into this boat, it will sink.’ #ONLY₁ / ✔ONLY₂

  lit. ‘If only two people get into this boat, it will sink.’ #ONLY₁ / ✔ONLY₂

c. Když jen dva lidi nasednou na tuto lod’, už se potopí.
   if only two people get(prpf) on this boat already self sink(prpf)
lit. ‘If only two people get into this boat, it will sink.’ #ONLY₁ / ✔ONLY₂

  lit. ‘If only two people get into this boat, it will sink.’ #ONLY₁ / ✔ONLY₂

d. Pokud jen dva lidi nasednou na tuto lod’, už se potopí.
   if only two people get(prpf) on this boat already self sink(prpf)
lit. ‘If only two people get into this boat, it will sink.’ #ONLY₁ / ✔ONLY₂

Further evidence against decomposing ONLY₂ into ONLY₁ + ALREADY stems from exclusive paraphrases. The examples in (658) and (659), which employ a negative, exclusive paraphrase suggest that adding schon ‘already’ barely brings improvement, different from what we might expect if ONLY₂ compositionally arises from placing an exclusive in the scope of already.

(658) Maximally one person can get into the boat
  a. Wenn nicht mehr als zwei Personen einsteigen, wird das Boot sinken.
     if not more than two persons get.in will the boat sink
     ‘If no more than two persons get into the boat, the boat will sink.’
     ⇒ only reading: ‘To stay afloat, more than two persons must get in.’
  b. Wenn nicht mehr als zwei Personen einsteigen, wird das Boot schon
     sinken.
     ‘If no more than two persons get into the boat, the boat will already sink.’

(659) Maximally one person can get into the boat
  a. Wenn weniger als drei Personen einsteigen, wird das Boot sinken.
     if less than three persons get.in will the boat sink
     ‘If less than three persons get into the boat, the boat will sink.’
     ⇒ only reading: ‘To stay afloat, more than two persons must get in.’
b. Wenn weniger als drei Personen einsteigen, wird das Boot schon sinken.
   ‘If less than three persons get into the boat, the boat will already sink.’

In sum, we have seen good reasons to assume that schon ‘already’ plays a substantial role in minimal sufficiency constructions even though it does not need to be made overt. At the same time, we have seen that it would be premature to conclude that schon ‘already’ is obligatory in minimal sufficiency constructions, and in fact I argued that ONLY\textsubscript{2} readings are available without ‘already’. The core question that arises can be posited as follows. How do we account for the observed interactions between ONLY\textsubscript{2} readings and the presence of schon ‘already’? The following section discusses the meaning of schon ‘already’ and provides an analysis that accounts for its interaction with ONLY\textsubscript{2}.

### 6.2.4.3 Understanding the interactions of Only\textsubscript{2} and Already

This section addresses the question of how we can understand the interactions of only and already in minimal sufficiency constructions. I will first discuss the meaning of already and then focus on its contribution to minimal sufficiency constructions.


\begin{enumerate}
\item[(660)] \textit{temporal still/already}
  \begin{enumerate}
    \item At 5AM, Sam was \textit{still} sleeping.
    \item At 5AM, Annie was \textit{already} awake.
  \end{enumerate}
\item[(661)] \textit{local still/already}
  \begin{enumerate}
    \item Ventimiglia is \textit{still} in Italy
    \item Menton is \textit{already} in France.
  \end{enumerate}
\end{enumerate}
However, the use of *already* (and possibly *still*) in minimal sufficiency conditionals seems to fall in the category of ‘marginality *already/still*’ (König 1977, Michaelis 1993, Ippolito 2007), (662)+(663). This is the construction I will be focusing on.

(662) *marginality still/already*

a. A: Tell me about sedans, compact and subcompact cars. Are they safe?
   B: Well, sedans are definitely safe. Compact cars are *still* safe.
   Subcompacts start to get dangerous.
   (Ippolito 2007:21, emphasis mine)

b. A: Tell me about compact and subcompact cars. Are they safe?
   B: Compact cars are safe. Subcompacts are *already* dangerous.
   (Ippolito 2007:23, emphasis mine)

(663) *marginality still/already*

Paul ist noch gemäßigt. Peter ist schon radikal.
Paul is still moderate. Peter is already radical
‘Paul is *still* moderate. Peter is *already* radical.’
(König 1977:183)

What unifies the three uses of *still* and *already* is their scalarity; these particles always serve to localize the modified proposition with respect to (a threshold on) some salient scale. Furthermore, in all three uses, the particles indicate proximity to a threshold on that scale (e.g. the point of waking up, the point of crossing the border, the standard for what it means to be radical). They differ in their choice of scale. Temporal *still/already* make reference to time intervals, local *still/already* make reference to distance on some local axis, marginality *still/already* make reference to a threshold on a qualitative scale (i.e. how *safe/dangerous* does a car have to be to count as *safe/dangerous*? How *moderate/radical* does a person have to be to count as *moderate/radical*?)

Focusing on English *even-if* conditionals, which emulate minimal sufficiency conditionals, the constructed examples in (664) approximate the kind of construction we are interested in. How can we understand these constructions?
(664)a. Even if only two people enter this boat, it will already sink.
   b. Even if you only donate one dollar, you’re already helping us.

First of all, it is worth pointing out that such clauses are not the same type of clauses as the *even-if* clauses that Barker (1991) and Ippolito (2007) study.

(665)a. Even if Bill pays me $200, I’m still not going to do it.
   b. Even if he had studied, he would still have failed.
      (Barker 1991: 23,29)

As shown in (666), the latter type of *even-if* clause fall into the ‘introduced-if’ category (where the consequent is entailed), (666a), and not into the ‘standing-if’ category (where the consequent is not entailed, cf. Guerzoni & Lim 2007), (666b). Therefore, trying to posit a connection there would be a red herring.

(666)a. Even if Bill pays me $200, I’m still not going to do it.
   (✓let alone if he doesn’t, #but if he doesn’t, I will)
   ⇒ I’m not going to do it no matter what.
   b. Even if you only donate one dollar, you’re already / still helping us.
      (#let alone if you don’t, ✓but if you don’t, you’re not)
      This is helping us no matter what.

As we know that *already/still* are scalar elements, what scale is involved in minimal sufficiency conditionals? The scale that seems to be involved whenever *still/already* occur in conditionals of the type that interests us is a scale of sufficiency, as illustrated by means of the paraphrases in (667). As it is not evident that the behavior of *already* distinguishes between simple unmarked conditionals and *even-if-only* conditionals, I will look at both in the following examples.
(667)a. (Even) if (only) ten people enter this boat, it will *already sink*.
   
   $\equiv$ An amount of ten people is *already enough* to sink this boat.

b. If nine people enter this boat, it will *still stay afloat*.
   
   $\equiv$ An amount of nine people is *still not enough* to sink this boat.

Let us now try to understand how to best analyze such constructions.

What we know about marginality *still* and *already* can be loosely summarized as follows. First of all, under their marginality reading, *x is still P* and *x is already P* convey that *x* has the property *P*, but that *x* is close to the threshold of not having the property. The standard view that temporal, local and marginality uses of *still/already* are truth-conditionally vacuous presupposition triggers is supported by the entailments in (668) and (669).

(668) a. Paul is **already** radical. *entails* Paul is radical.

b. Paul is **still** radical. *entails* Paul is radical.

(669) a. (Even) if (only) ten people enter, this boat will **already** sink.

   *entails* An amount of ten passengers is sufficient to sink this boat.

b. If ten people enter, this boat will **still** sink.

   *entails* An amount of ten passengers is sufficient to sink this boat.

Second, *still* and *already* differ in their perspective; *still* is appropriate when it is under discussion whether *x is P*, (670b)+(671b), whereas *already* is appropriate when it is under discussion whether *x is not P*, (670a)+(671a).

(670) a. Peter is **still moderate**. Paul is **already radical**. $\Rightarrow$ focus on *being moderate*

   cf. ? Peter is **very radical**. Paul is **already radical**.

b. Paul is **very radical**. Paul is **still radical**. $\Rightarrow$ focus on *being radical*

   cf. ? Peter is **still moderate**. Paul is **still radical**.
(671)  a. If nine people enter, this boat will not yet sink, but if ten people enter, this boat will already sink.

*cf.* ? If twenty people enter, this boat will definitely sink. If ten people enter, this boat will already sink.

b. If twenty people enter, this boat will definitely sink. If ten people enter, this boat will still sink.

*cf.* ? If nine people enter, this boat will not yet sink, but if ten people enter, this boat will still sink.

Third, there are good reasons to view all instances of still as duals of already (cf. (672)+(673)), i.e. whichever analysis we devise for still should also entail an analysis for already (Loebner 1989, 1999; against Mittwoch 1993, Van der Auwera 1993).

(672)  a.  still p  =  ¬already ¬p

Peter is still moderate.  =  It is not the case that Peter is already radical.

b.  already p  =  ¬still ¬p

Paul is already radical.  =  It is not the case that Paul is still moderate.

(673)  a. (Even) if (only) ten people enter, this boat will already sink.

  =  It is not the case that if ten people enter, this boat will still stay afloat.

b. If ten people enter, this boat will still sink.

  =  It is not the case that if as little as ten people enter, this boat will already stay afloat.

So, how should we analyze these occurrences of still/already and how do they interact with the semantics of minimal sufficiency conditionals?

My analysis develops ideas from Michaelis (1993) and Ippolito (2007). Consider first a simple case of marginality still/already. What an analysis needs to account for are two meaning components: marginality (i.e. closeness to a threshold) and perspective (i.e. the whether we are interested in whether something is the case or not).
(674)  a. Compact cars are **still** safe.
    
    b. *described situation:*

![Diagram](image)

(675)  a. Compact cars are **already** safe.
    
    b. *described situation:*

![Diagram](image)

In brief, the insight from König (1977), Michaelis (1993) and Ippolito (2007) is that marginality *still/already* are presupposition triggers that give rise to an additive presupposition, (676b-i) and (676c-i), and a marginality presupposition, (676b-ii) and (676c-ii).

(676)  a. If defined, $\|\text{still } \varphi\|^{c,g} = \|\text{already } \varphi\|^{c,g} = \|\varphi\|^{c,g}$
    
    b. $\|\text{still } \varphi\|^{c,g}$ is defined iff
    
    (i.) there is a salient alternative $\psi$ that has the same property (e.g. being moderate, being safe, …)  
    
    **ADDITIVITY**
    
    (ii.) on a salient scale (e.g. political moderation, safeness, …), $\varphi$ is close to the contextual threshold.  
    
    **MARGINALITY**
    
    c. $\|\text{already } \varphi\|^{c,g}$ defined iff
    
    (i.) there is a salient alternative $\psi$ that has the opposite property (e.g. moderate $\leftrightarrow$ radical, safe $\leftrightarrow$ dangerous, …)  
    
    **ADDITIVITY**
    
    (ii.) on a salient scale (e.g. political moderation, safeness, …), $\varphi$ is close to the contextual threshold.  
    
    **MARGINALITY**
As our main focus is on *already* (and not on *still*), I will now focus exclusively on *already* in minimal sufficiency conditionals, narrowing the scope of discussion a bit. Consider (677); if we assume that an antecedent proposition of *only two people get in* is equivalent to *exactly two people get in*, we can write possible alternatives of the antecedent proposition as \( p = n \) persons (for \( p = \) exactly two persons get in). What seems to be relevant for *schon* ‘already’ is whether the antecedent is sufficient for the consequent in the standard conditional sense. \( p \Rightarrow \text{sink} \) is an abbreviation for the standard truth-condition of a conditional, i.e. in all closest \( p \)-worlds, the boat is sinking.)

(677) a. Wenn (nur) zwei Leute einsteigen, wird das Boot schon sinken. (Even) if (only) two people get in, the boat will already sink.

b. described situation: threshold (such that anything above it counts as sufficient)

As indicated, a unification of *schon* ‘already’ in minimal sufficiency conditionals and marginality *already* as in (675) is possible according to our intuitions. As shown in (678), *schon* ‘already’ conveys closeness to a threshold.

(678) **Context: We all know that two people are enough to sink this boat.**

Wenn (nur) fünf Leute einsteigen, wird das Boot (#schon) sinken. (Even) if (only) five people get in, the boat will (#already) sink.

And as shown in (679) versus (680), the perspective is on alternatives that are below the threshold.
(679)a. Wenn eine Person einsteigt, wird das Boot noch nicht sinken.  
   ‘If one person gets in, the boat will not yet sink.’

   b. (Aber) wenn (nur) zwei Personen einsteigen, wird das Boot schon sinken.  
   ‘(But) if (only) two people get in, the boat will already sink.’

(680)a. Wenn fünf Person einsteigen, wird das Boot definitiv sinken.  
   ‘If five persons get in, the boat will definitely sink.’

   b. (Aber) wenn (nur) zwei Personen einsteigen, wird das Boot schon sinken.  
   ‘(But) if (only) two people get in, the boat will already sink.’

Ippolito (2007), focusing on occurrences of still/already as in (681), posits a semantics for marginality already/still that treats these elements as additive presupposition triggers that have the semantics of adjectival modifiers (of type <<e,<d,et>>,t>, cf. Kennedy & McNally 2005). Her semantics is given in (682) (adapted from Ippolito 2007:24).

(681)  a. Compact cars are still fairly safe; subcompacts start to get dangerous.

          b. Compacts are already safe.
          (Michaelis 1993:223, 230)

(682)a. $|\text{still}|_{\text{c<e}} = \lambda x. \lambda P_{<d<et>} : \exists y \neq x [\exists d(C(d) and P(y) \geq d)]$.  

   “Presupposition: There is a salient alternative of which the same property holds.”
   \[\exists d[C(d) and P(x) \geq d]]\]  

   “Truth Conditional Content: The degree to which P holds of (x) is above the contextual standard.”

b. $|\text{already}|_{\text{c<e}} = \lambda x. \lambda P_{<d<et>} : \exists y \neq x [\exists d(C(d) and A_P(y) \geq d)]$.  

   “Presupposition: There is a salient alternative of which the antonym property holds.”
   \[\exists d[C(d) and P(x) \geq d]]\]  

   “Truth Conditional Content: The degree to which P holds of (x) is above the contextual standard.”

where $A_P$ is the antonym of a gradable adjective $P$ (i.e. a gradable predicate that uses the same scale with an inverse ordering relation)
There are several reasons to diverge from Ippolito’s analysis. First of all, the cases of *already* in minimal sufficiency constructions that I discussed to not lend themselves to an analysis in terms of degree predication (unless we treat the conditional modal as a gradable predicate, which we may model in terms of Villalta 2007). Secondly, it is not evident how Ippolito’s additive analysis in (682) derives the fact that marginality *already/still* conveys closeness to the relevant threshold.

I will instead pursue a semantics closer to Guerzoni & Lim’s (2007) view on *even*, which makes the following assumptions. First of all, *schon* ‘already’ in minimal sufficiency constructions takes scope over the entire conditional, i.e. it combines with a proposition. Secondly, as foreshadowed by the sketch in (677), we can assume that *schon* ‘already’ quantifies over alternatives which roughly correspond to the focus alternatives of *only* in the antecedent clause. We can then model additivity as a presupposition that there is a focus alternative, which is false, and we can model marginality as a presupposition that of all true focus alternatives, the modified proposition is the strongest. I propose that *schon* ‘already’ does not lexically associate with focus, but rather retrieves salient alternatives from the context (cf. Beaver & Clark 2008). For instance, it seems possible to have *schon* ‘already’ in an implicitly conditionalized matrix clause, such as (683B) (which seems to have the same relevant alternatives as (677)). This should not be possible if *schon* ‘already’ lexically associated with focus.

(683)

A: Ist es in Ordnung, wenn nur zwei Leute einsteigen?
   *is it in order if only two people get in*
   ‘Is it ok if only two people enter the boat?’

   B: Nein, weil dann wird das Boot *schon* sinken.
   *no because then will the boat already sink*
   ‘No, because the boat will already sink in such circumstances.’

We can roughly posit a semantics for marginality *schon* ‘already’ as follows (which is very close to Guerzoni & Lim’s 2007 view on *even*)\(^{119}\).

\(^{119}\) This analysis for marginality *already* in minimal sufficiency conditionals shares with Ippolito’s (2007) analysis of concessive *still* (in (i)+(ii)) the idea that *already* is a propositional operator.

i. John studies all night, and he still failed the test.
||already||(C)(p)(w) is defined iff
\[ \exists q \in C \ [q \neq p \land q(w) = 0] \land \text{ (NEGATIVE) ADDITIVITY} \]

\[ \text{Presupposition 1: There is a false contextually given alternative.} \]
\[ \forall q \in C \ [\{q \neq p \land q(w) = 1\} \rightarrow p <_{\text{likely/expected}} q] \text{ MINIMAL SUFFICIENCY} \]

\[ \text{Presupposition 2: The modified proposition is the least likely of all true alternatives.} \]

If defined, then ||already||(C)(p)(w) = p(w) \text{ IDENTIFY}

\[ \text{Truth Conditional Content: already is truth-conditionally vacuous.} \]

This analysis is illustrated for our core example in (685).

(685) a. Wenn (nur) zwei Leute einsteigen, wird das Boot schon sinken.
if only two people get in will the boat already sink
‘(Even) if (only) two people get in, the boat will already sink.’

b. C (provided by the context) = \{the boat will sink if one person gets in, 
the boat will sink if two persons get in, 
the boat will sink if three persons get in, \ldots\} 

c. Assertion:
If two people get in, the boat will sink.

d. Scalar (Minimal Sufficiency) Presupposition:
All other true alternatives (\{if three persons get in the boat will sink, if four 
persons get in the boat will sink, \ldots\}) are more likely than the prejacent (if 
two people get in, the boat will sink).

e. (Negative) Additive Presupposition:
There is at least one false alternative (if one person gets in, the boat will sink).

ii. Even if the doctor tells him not to, Harry will still run the marathon.
(Ippolito 2007:25)
However, Ippolito’s analysis does not seem to carry over to the phenomenon under discussion. She argues 
that still in (ii) presupposes that it is less likely [that Harry runs the marathon if the doctor tells him not to] 
than [that Harry runs the marathon if it’s not the case that the doctor tells him not to]. Treating already as 
the dual, this would predict that (iii) presupposes that it is more likely [that the boat sinks if only two 
persons get in] than [that the boat sinks if it’s not the case that only two people get in]. This is clearly not the 
case.

iii. Even if only two people get in, this boat will already sink.
Notably, my analysis also accounts for the occurrence of *schon* ‘already’ as a discourse particle in German (cf. Thurmair 1989, Ornelius-Sandblom 1997). Consider Thurmair’s (1989) example in (686). If we assume that the statement *nothing is ok* (or, as I more conservatively suggest, *zwieback is ok*) is a salient alternative to *cauliflower casserole is ok* in (686a), we derive the right meaning in (686d-e) and also derive the deviance of (686b), given that *meat is ok* is (in a meat-eating culture) assumed to be more likely than *cauliflower casserole is ok*.

(686) In a culture that highly values eating meat and typically does not consider vegetables to be a real meal.

Him: Soll ich morgen Blumenkohlauflauf machen oder was mit Fleisch?
   ‘Shall I make cauliflower casserole or something with meat?’

a. Her: Blumenkohlauflauf ist schon okay.
   cauliflower.casserole is schon ok
   ‘Cauliflower casserole will do.’

   meat is schon ok
   ‘Meat will do.’

(Thurmair 1989:152,fn.73)

c. C (provided by the context) = {zwieback is ok, cauliflower.casserole is ok, meat is ok, …}

c. **Assertion:**
   Cauliflower casserole is ok.

d. **Scalar (Minimal Sufficiency) Presupposition:**
   All other true alternatives ({meat is ok, …}) are more likely than the prejacent (cauliflower casserole is ok).

e. **(Negative) Additive Presupposition:**
   There is at least one false alternative (zwieback is ok).

So, how do *only* and *already* interact in conditionals? First of all, this analysis is compatible with the observation that minimal sufficiency *only* (i.e. $\text{ONLY}_2$) is not a compositional result of $\text{ONLY}_1$ in the scope of *already*. After all, *already* is simply a
presupposition trigger like *even* that has the purpose of reinforcing the minimal sufficiency flavor of a minimal sufficiency conditional. Secondly, we have an understanding why *already* in combination with *ONLY*₁ does sometimes give rise to an *ONLY*₂-like reading. In its semantics, *already* is very similar to *even*, and it is plausible that the *ONLY*₂-like reading can arise as an inference from *already* + *ONLY*₁ just as much as it can from *even* + *ONLY*₁. The fact that *schon* ‘already’ can occur in minimal sufficiency conditionals that do not allow for *selbst* ‘even’ or *sogar* ‘even’, (687)+(688), may simply follow from the fact that the latter must lexically associate with focus and sometimes fail to do so, whereas *schon* ‘already’ inherits its alternatives from the context.

(687) a. Schon/*Selbst/ *Sogar wenn nur keiner mehr hat, sind sie zufrieden. already even even if only nobody more has are they content ‘Already / *Even if only nobody has more than everyone else, they are content.’

b. Wenn nur keiner mehr hat, sind sie schon/*selbst/ *sogar zufrieden. if only nobody more has are they already even even content ‘If only nobody has more than everyone else, they are already / *even content.’

(688) a. Schon/Selbst/Sogar wenn nur zwei Leute einsteigen, sinkt das Boot. already/even/even if only two people get in sinks the boat ‘Even if only two people get in, the boat will sink.’

b. Wenn nur zwei Leute einsteigen, sinkt das Boot schon/*selbst/ *sogar. if only two people get in sinks the boat already/even/even ‘If only two people get in, the boat will already sink.’

So, how do *only* and *already* interact in minimal sufficiency conditionals? In the standard case, (689a), *only* and *already* reinforce each other. While *only* indicates that the antecedent proposition is low on some salient scale, *already* indicates that the conditional asserts the strongest true alternative (i.e. the antecedent proposition is only just about sufficient for the consequent proposition to follow).

(689) a. Wenn (nur) zwei Personen einsteigen, wird das Boot (schon) sinken. if ONLY₂ two persons get in will the boat already sink lit. ‘If (only) two persons get in, the boat will (already) sink.’
b. **Assertion:**

‘All of the closest possible worlds in which two persons get into the boat are worlds in which the boat sinks.’

c. **Contribution of ONLY:2**

Of all the focus alternatives {one person gets in, two persons get in, three persons get in, four persons get in, …}, which are ordered on a scale (here: totally ordered entailment scale), the modified proposition (two persons get in) is relatively low.

d. **Contribution of ALREADY:***

In the set of all contextually salient alternatives {that the boat sinks if one person gets in, that the boat sinks if two persons get in, that the boat sinks if three persons get in, …}, there is at least one false alternative, and the modified proposition (that the boat sinks if two persons get in) is the strongest true alternative.

So why could schon ‘already’ ever be obligatory in German minimal sufficiency conditionals, as in (690), which sharply contrasts with (691).

(690a. Es ist **schon** schlecht, [wenn es **nur** ein paar Minuten regnet].

it is schon bad if it only a few minutes rains
‘It’s already bad if it only rains for a few minutes.’

b.* **ONLY**1 reading: It is bad if it does not rain for more than a few minutes.

⇒ Rain is good. (□ rain)

c. **ONLY**2 reading: It is bad if it rains, even if it only rains for a few minutes.

⇒ **Rain is bad.** (□¬ rain)

(691a. Es ist schlecht, [wenn es **nur** ein paar Minuten regnet].

it is bad if it only a few minutes rains
‘It’s bad if it only rains for a few minutes.’

b. **ONLY**1 reading: It is bad if it does not rain for more than a few minutes.

⇒ **Rain is good.** (□ rain)

c. **ONLY**2 reading: It is bad if it rains, even if it only rains for a few minutes.

⇒ Rain is bad. (□¬ rain)
I propose that this pattern is due to the pragmatic maxim Maximize Presupposition (Heim 1991). I assume that (691) does in fact have both readings, but the only2 reading is blocked by virtue of a scalar implicature; an only2 reading requires that the matrix clause is understood as it is just about bad, which is stronger in terms of entailment than it is bad. (The statement p is just about bad entails p is bad, but it is not the case that p is bad entails p is just about bad.)

(692)a. It is just about (= schon) bad that p. ⇒ It is bad that p.
   b. It is bad that p. /\ It is just about (= schon) bad that p.
   c. scalar implicature:
      it is bad that q implicates \neg [it is just about (= schon) bad that q]

This implicature may not arise (or at least be easier to cancel) if the if-clause precedes the matrix clause, which accounts for the fact that we find obligatory schon ‘already’ mainly in left-peripheral matrix clauses.

What we expect to see is that less categorical predicates than bad, which entail sufficiency in the relevant sense, may not give rise of the same type of only2-blocking scalar implicature. This is indeed the case, as shown in (693). In (693a), be glad gives rise to the scalar implicature \neg be just about glad, thus blocking an only2 reading in absence of schon ‘already’. In contrast, (693b) contains the more gradable be content, which does not seem to imply \neg be just about content; therefore an only2 reading is more easily accessed in the absence of schon ‘already’.

(693)a. Ich wäre *(schon)* froh, [wenn du mir nur einmal geschrieben hättest].
   I were schon glad if you me only once written had
   ‘I would already be glad if you had written me once.’
   intended: I would be glad if you had written me at least once, which is not
   much to ask for. (ONLY2 reading)

b. Ich wäre (schon) zufrieden, [wenn du mir nur einmal geschrieben hättest].
   I were schon content if you me only once written had
   ‘I would already be glad if you had written me once.’
   intended: I would be content if you had written me at least once, which is not
   much to ask for. (ONLY2 reading)
So, should we assume that optatives contain a covert *schon* ‘already’? I believe we can safely conclude that such an assumption is unwarranted. For one, in optatives there is no overt matrix clause that may give rise to a scalar implicature that blocks an ONLY₂ reading. On the other hand, we have already seen that optatives are much more felicitously described as utterances of the *be content* type than as utterances of the *be glad* type. We can thus conclude that optatives truly contain ONLY₂, which we have seen to independently exist in minimal sufficiency conditionals. So, what impact does ONLY₂ have in optatives? This is addressed in the next section.

### 6.2.5 Mitigating Expressives: On the role of Only₂ in Exclamations

The most intriguing effect of *only* in optatives is that it first appears to license optativity, and second disambiguates between optative exclamations and other types of exclamations. Let me first discuss the former property. In many languages, ‘only’ (under the reading that I have argued to be ONLY₂) is one of various elements that can license an optative interpretation for an *if*-clause. Elements that license optativity include ‘only’, ‘at least’ and interjections, though sometimes an initial sigh or a particular intonation (e.g. verum focus, cf. Rosengren 1993) is also sufficient. *If*-clauses without any marking are typically deviant, as in (694d) or (695d). How does *only* fulfill this licensing role?

(694) a. Ach, wenn ich reich wäre! German
    b. Wenn ich nur reich wäre!
    c. Wenn ich wenigstens reich wäre!
    d. Wenn ich reich wäre!
    oh if I only at.least rich were
    ‘If only I were (at least) rich!’

(695)a. Eh, da je Jovan poslušao Mariju! Serbian
    b. Da je samo Jovan poslušao Mariju!
    c. Da je Jovan barem poslušao Mariju!
    d. Da je Jovan poslušao Mariju!
    oh, that be.3sg only John at.least listened Mary-acc
    ‘If only John had (at least) listened to Mary!’
I postpone a discussion of the licensing property of particles to section 6.5. In section 6.5, I argue that prototypical elements such as interjections and particles serve as cues for optative exclamations due to their property of eliminating different competing readings of multiply ambiguous utterances. As a consequence, general principles of successful communication entail that speakers will typically use (694a-c) or (695a-c) to convey an optative, and (694d) / (695d) will be understood as the antecedent of a fragmentary hypothetical conditional. This will typically give rise to ill-formedness of (694d) and (695d), unless contextual information overrides the pragmatic inference and makes an optative reading available.

In the reminder of this section, I focus on the disambiguating effect of nur ‘only’ in exclamations, to show how a particle like this can bring out an intended reading by eliminating a possible alternative. First of all, consider two utterances that are ambiguous between a polar exclamative reading (under which they express surprise) and an optative reading (under which they express desire). (696a), which is in the subjunctive, can be uttered in a context in which the speaker knows that under certain counterfactual circumstances Anna would have given Otto the book; in such a context, it gets the reading in (696b), expressing shock or dismay at this fact. Similarly, (696a) can be uttered in a context where the speaker knows that Anna didn’t give Otto the book, but wishes she had done so; in such a context, it gets the reading in (696c), expressing a wish for this to have taken place.

(696)a. Hätte die Anna dem Otto doch tatsächlich das Buch gegeben!
    had$_{subj}$ the Anna to.the Otto doch indeed the book given
    lit. Had$_{subj}$ Anna indeed given Otto the book!

    b. *polar exclamative reading*:
       ‘[It’s shocking that] Anna would have indeed given Otto the book!’

    c. *optative reading*:
       ‘If only Anna had given Otto the book!’

    (developed from Scholz 1991:132-133)
Similarly, the indicative example in (697a) can be uttered in a context where we know that Otto was working all night and yet he managed to wake up in time; in such a context, it expresses surprise and admiration for the fact that he didn’t oversleep, as in (697b). Contrastively, (697a) can be uttered in a context where we know that Otto was working all night and we are waiting for him to show up and catch an early train with us. In this context, (697a) has the reading in (697c), where it expresses hope or desire for Otto to not have overslept and show up in time.

(697)a. Mein Gott, dass der Otto nicht verschlafen hat!
    my God that he Otto not overslept has
    lit. My God, that Otto didn’t oversleep!

   b. polar exclamative reading:
     ‘[It’s shocking that] Otto didn’t oversleep!’

   c. optative reading:
     ‘[I hope that] Otto didn’t oversleep!’

While context is usually sufficient to disambiguate between the readings in (696b+c) and (697b+c), adding nur ‘only’ into this construction is a grammatical means of disambiguation. The crucial generalization is illustrated in (698) (a modified version of (696)) and (699) (a modified version of (697)). If we add nur ‘only’ into either of these examples, the polar exclamative reading disappears and only the optative reading remains.

(698) Hätte die Anna dem Otto doch nur tatsächlich das Buch gegeben!
    had subj the Anna to the Otto doch only indeed the book given
    lit. Had subj Anna only indeed given Otto the book!
    * ‘[It’s shocking that] she would have indeed given him the book!’ (polar excl.)
    ✓ ‘If only she had given him the book!’ (optative)

(699) Mein Gott, dass der Otto nur nicht verschlafen hat!
    my God that he Otto only not overslept has
    lit. My God, that Otto didn’t oversleep!
    * ‘[It’s shocking that] he doesn’t oversleep!’ (polar excl.)
    ✓ ‘[I hope that] he doesn’t oversleep!’ (optative)
The puzzle that arises is how to account for this generalization. What we can observe is that there is no incompatibility of \textit{ONLY}_2 and surprise as such, as (700b+c) are as wellformed as (700a). (Based on the discussion of \textit{schon} ‘already’ in the preceding sections, I insert \textit{schon} ‘already’ to bring out the relevant reading.) Even (701) seems acceptable.

(700) a. \textit{Wenn nur} zwei Leute einsteigen, bin ich \textit{schon} froh.
   if only two people get in am I already happy
   ‘Even if only two people get in, I’m already happy.’

b. \textit{Wenn nur} zwei Leute einsteigen, schockiert es mich \textit{schon}.
   if only two people get in shocks it me already
   ‘Even if only two people get in, I’m already shocked.’

c. \textit{Wenn nur} zwei Leute einsteigen, überrascht es mich \textit{schon}.
   if only two people get in surprises it me already
   ‘Even if only two people get in, I’m already surprised.’

(701) \textit{Context: I expected for nobody to show up}
Es schockiert mich \textit{schon}, dass \textit{nur} eine Person gekommen ist.
it shocks me already that only one person came is
‘Even that only one person came is already shocking.’

So how could we possibly account for the disambiguating effect of \textit{nur} ‘only’ in exclamations?

Reconsider our entries for \textit{EX} and \textit{ONLY}_2, in (702) and (703).

(702) For any scale \(S\) and proposition \(p\), interpreted in relation to a context \(c\) and assignment function \(g\),

an utterance \(\text{EX}(S)(p)\) is felicitous iff \(\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]\)

‘\text{EX} expresses an emotion that captures the fact that \(p\) is higher on a (speaker-related) scale \(S\) than all contextually relevant alternatives \(q\) below a contextual threshold.’

\textit{where} \ THRESHOLD\((c)\) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale \(S\).
A first possibility for deriving the disambiguating effect of $\text{ONLY}_2$ would be to connect it to the type of scale that $EX$ combines with. One may conjecture that $\text{ONLY}_2$ in $EX$-utterances ends up having its scale argument co-bound (and thus co-referent) with the scale argument on $EX$. This is plausible if scale arguments, which are provided by the context are bound by a scale pro-form at the root of a tree.

(704)

Scale-matching may require for the scales of $\text{ONLY}_2$ and $EX$ to be identical. In regular minimal sufficiency conditionals, no such scale-coreference is required, as $\text{ONLY}_2$ is the only element with a scale argument that they contain. It is thus plausible that it is the scale-matching that gives rise to the disambiguating effect of $\text{ONLY}_2$ in $EX$-utterances. Specifically, one may conjecture that it is the nature of the scale in polar exclamatives (an inverse likelihood scale) that blocks $\text{ONLY}_2$.

However, once again, the next step is not trivial. First, consider the meaning that we derive for the optative reading of (705a), in (705b+c). Given that $\text{nur}$ ‘only’ here may be assumed to associate with sentential focus, the alternatives for $\text{ONLY}_2$ are constrained mainly by the context; if the alternatives are as given in (705d), then (705c) will be satisfied.

(705a. Mein Gott, dass der Otto $\text{nur}$ nicht verschlafen hat! My God, that he Otto only not overslept has
lit. My God, that Otto didn’t oversleep!
b. \( EX \Rightarrow \) an utterance of (705) is felicitous iff \( \forall q[THRESHOLD(c) >_{\text{preferences}} q \rightarrow \text{Otto-didn’t-oversleep} >_{\text{preferences}} q] \)

c. \( ONLY_2 \Rightarrow \) Most contextually salient alternatives are such that they are higher on the speaker’s preference scale than [Otto didn’t oversleep].

d. Contextual alternatives:
  
  \{Otto overslept, \\
  Otto didn’t oversleep, \\
  Otto didn’t oversleep and Otto bought breakfast for everyone, \\
  Otto didn’t oversleep and the weather is nice, \ldots\} 

What do we predict for the (non-existent) surprise reading of (705)? As shown in (706), no conflict is predicted to arise. It thus follows that scale-matching alone is not a satisfactory means of accounting for the disambiguating effect associated with \( ONLY_2 \). (We will however see that scale-matching may be involved in optatives that contain ‘at least’.)

(706)a. Mein Gott, dass der Otto nur nicht verschlafen hat!
  my God that he Otto only not overslept has
  lit. My God, that Otto didn’t oversleep!

b. \( EX \Rightarrow \) an utterance of (706) is felicitous iff \( \forall q[THRESHOLD(c) >_{\text{unlikelihood}} q \rightarrow \text{Otto-didn’t-oversleep} >_{\text{unlikelihood}} q] \)

c. \( ONLY_2 \Rightarrow \) Most contextually salient alternatives are such that they are higher on the speaker’s unlikelihood scale than [Otto didn’t oversleep].

d. Contextual alternatives:
  
  \{Otto overslept, \\
  Otto didn’t oversleep, \\
  Otto didn’t oversleep and Otto bought breakfast for everyone, \\
  Otto didn’t oversleep and the weather is nice, \ldots\} 

Let us explore a different venue. We have seen that Dutch \( maar \) ‘only’ occurs in optatives and also has a minimal sufficiency reading, (593). Van der Wouden (1997) proposes that \( maar \) ‘but’ is a positive polarity item that cannot be in the scope of an \textit{anti-additive} operator (contrasting with the negative polarity item \textit{ook maar} ‘also but, any’,

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which must be in the scope of an anti-additive operator), cf. Szabolcsi (2004). As we have seen, maar ‘but’ seems to have ONLY_2 readings and license optatives, the following question arises. Can we derive the disambiguating effect of nur ‘only’ and maar ‘but’ in optatives from polarity? I suggest that we can. Anti-additivity is defined as follows.

(707)  a. A function $f$ is antiadditive iff $f(a \lor b) = fa \land fb$.

     b. No one walks or talks = No one walks and no one talks

     (Szabolcsi 2004:414)

Do different choices of scalar arguments for EX imply different properties with respect to antiadditivity and polarity licensing? I suggest that they do. Let us first look at desirability (which I assumed to be involved in optatives). If $a$ or $b$ is desirable, it is not necessarily the case that $a$ is desirable and $b$ is desirable, as the conjunction, $a$ and $b$, may not be desirable. This is summarized in (708) and supported by the intuition that the statements in (709) are not contradictory. In other words, desirability is not antiadditive.

(708)  It is desirable that John or Mary comes.

     $\neq$ It is desirable that John comes (no matter what)
     and it is desirable that Mary comes (no matter what).

     (given that John and Mary may hate each other)

(709)a. It is desirable that Bob or Ann comes, but it is not desirable that both come, as they hate each other.

     b. It is [desirable that Bob or Ann comes], but it is not independently [desirable that Bob comes] and [desirable that Ann comes], as Bob and Ann hate each other. (Ann’s coming is only desirable if Bob does not come and vice versa.)

Contrastively, can we show that unlikelihood (which I assumed to be involved in polar exclamatives) is antiadditive? This is not immediately obvious if we look at probability theory (e.g. if we assume that $p$ is unlikely translates to the probability of $p$ is smaller than 33%). On the one hand, it is clearly the case that if $a$ or $b$ is unlikely, then $a$ is
unlikely and \( b \) is unlikely, but on the other hand, if \( a \) is unlikely and \( b \) is unlikely, it does not necessarily follow that \( a \ or \ b \) is unlikely. The crucial question is thus what ‘unlikelihood’ means when we are dealing with polar exclamatives. How do we measure ‘subjective unlikelihood’ (which we seem to be dealing with)? If the relevant scale is best conceived of as a scale of shockingness (i.e. if subjective unlikelihood is a function of shockingness), anti-additivity does seem to be one of its properties. The clauses in (710) feel contradictory, indicating that shockingness might well be anti-additive, as summarized in (711)\(^{120}\). Under such a view, probability theory would simply not capture the notion of subjective unlikelihood (i.e. shockingness).

(710)a. ??It is shocking if John or Mary comes, but it is not shocking if John comes and it is not shocking if Mary comes.
   b. ??It is shocking if John comes and it is shocking if Mary comes, but it is not shocking if John or Mary comes.

(711) It is shocking if John or Mary comes.
   = It is shocking if John comes and it is shocking if Mary comes.

So, by virtue of scale selection, polar exclamatives should be anti-additive environments, (711), while optatives should not be, cf. (708). This predicts not only that \( \text{ONLY}_2 \) should be bad in polar exclamatives, but it also predicts that NPIs should be bad in optatives. We already know that the latter is the case, see chapter 4 (cf. Gärtner 2010). Reconsider the example (712).

(712)a. Mensch, dass dieser Kandidat einmal einen Förderpreis erhalten hat!
   man that this candidate once a grant received has ‘Man, that this candidate has once received a grant!’

\(^{120}\) This naturally raises the question of how to deal with (700) and (701). The intuition seems to be that schon ‘already’ is obligatory in these examples. This might indicate that we are actually dealing with a combination of ‘already’ and \( \text{ONLY}_1 \), which we have seen to give rise to apparent \( \text{ONLY}_2 \) readings in Czech and Portuguese.
b. *scenario for optative reading*

We are auditioning different candidates for a new job. So far, none of our candidates has ever received a grant. We are tired and desperate and really hope that the candidate who is about to enter has received a grant at least once.

*paraphrase:* ‘[Let’s hope] that this candidate has once received a grant!’

c. *scenario for polar exclamative reading*

We are auditioning different candidates for a new job. Our last candidate was a complete disaster and we consider him completely incompetent. However, he has received a grant once in his career, which shocks us. After he leaves, we express our shock (and dismay) at this fact.

*paraphrase:* ‘[It’s shocking] that this candidate has once received a grant!’

As shown in chapter 4, inserting an NPI appears to eliminate the optative reading.

(713) Mensch, dass dieser Kandidat *je*(mals) einen Förderpreis erhalten hat!

man that this candidate ever a grant received has

‘Man, that this candidate has ever received a grant!’

* optative reading
✓ polar exclamative reading

Similarly, we have seen that inserting *ONLY₂* eliminates the polar exclamative reading. (Naturally, (714) is well-formed if *only* has the exclusive *ONLY₁* reading.)

(714) Mensch, dass dieser Kandidat *nur* einen Förderpreis erhalten hat!

man that this candidate only₂ a grant received has

‘Man, that this candidate has received a grant!’

✓ optative reading
* polar exclamative reading

A combination of the positive polarity element *ONLY₂* and an NPI is predicted to yield ill-formedness, (715).
(715)# Mensch, dass dieser Kandidat nur je einen Förderpreis erhalten hat!
man that this candidate only\(_2\) ever a grant received has  
‘Man, that this candidate has received a grant!’

* optative reading
* polar exclamative reading

Another construction that confirms the generalization that ONLY\(_2\) and NPIs are in complementary distribution is the adversative construction in (716). While such constructions seem to freely employ ONLY\(_2\)\(^{121}\), they do not allow for NPIs either, (717). (I should remark that this raises a question of which scale such constructions employ, as undesirability should be anti-additive.)

(716) a. TOYBOY... wenn ich das nur schon lese. Warum diese Abwertung? 
toyboy if I that only already read why this degradation  
‘Toyboy… [I already get annoyed] if I just read this. Why this degradation?’

(forum comment on http://top.de/21xP-Ihr-neuer-Lover-ist-gerade-mal-24)

b. "Aus angeblich sichern Quellen....", ha, wenn ich das nur schon lese... 
from allegedly safe sources ha if I that only already read  
‘“From allegedly reliable sources”, ha, [I feel sick] if I just read this…’


c. Meinl einigt sich aussergerichtlich; wenn ich das nur lese ...
Meinl agrees self out-of-court if I that only read  
‘Meinl comes to an extrajudicial settlement; [I get angry] if I just read this …’


(717) # Wenn ich das je(mals) lese!
if I that ever read  
‘If ever I read this!’

---

\(^{121}\) In (716), an exclusive ONLY\(_1\) reading, if I do nothing but read this, seems inapplicable.
We can thus conclude that the disambiguation effect of ONLY_2 in EX utterances seems to be due to its positive polarity. In this sense, the use of ONLY_2 is a grammatical means of eliminating different readings of EX utterances, such as a polar exclamative reading. Note that the presence of concessive ‘at least’ in optatives (cf. section 6.3) is further evidence that optatives are positive polarity environments, as ‘at least’ is not licensed in negative polarity environments, cf. Rullmann & Nakanishi (2009).

An open question that I wish to mention concerns the origin of the positive polarity that I attribute to ONLY_2. Why would ONLY_2 be a positive polarity item? How could we derive this property? What is clear is that many discourse particles seem to be positive polarity items to a stronger or lesser extent. Looking at German, discourse particles can quite generally not occur in the scope of negation, as shown in (718a) versus (718b) for ja, doch, wohl and eben (see also Thurmair 1989).

(718) a. Es ist (ja / doch / wohl / eben) niemand gekommen.  
it is ja doch wohl eben nobody come 
‘Nobody came [ja / doch / wohl / eben].’

nobody is *ja *doch *wohl *eben come 
‘Nobody came.’

As all of these particles plausibly share the property of ONLY_2 that they are truth-conditionally vacuous, I conjecture that truth-conditional vacuity may be one of the possible causes of positive polarity.\footnote{It is worth pointing out that even if truth-conditional vacuity is a potential cause of positive polarity, it does not automatically follow that it is a sufficient condition for positive polarity. In other words, there might be truth-conditionally vacuous elements that do not classify as positive polarity items.}

\section{Interim Summary

In this section, I have proposed an analysis for only in optatives. I argued that only in conditionals generally gives rise to two readings, the canonical exclusive ONLY_1 reading and a non-canonical ONLY_2 reading, in which it merely marks lowness on a salient scale. I discussed the existence of minimal sufficiency conditionals, which contain ONLY_2 in their
antecedent, and I showed that ONLY$_2$ does not arise compositionally from interpreting ONLY$_1$ in the scope of EVEN or ALREADY. Finally, I argued that the disambiguating effect of ONLY$_2$ in $EX$ utterances is its positive polarity. Due to the inverse likelihood scale that they select, polar exclamatives are anti-additive and thus disallow for ONLY$_2$. An utterance that is ambiguous between an optative reading and a polar exclamative reading can thus be disambiguated by means of inserting ONLY$_2$. In the following two sections, I discuss at least and doch, two further elements that are cross-linguistically prototypical for optatives. The upcoming discussions are naturally shorter, as I will be drawing on insights from the present section.

6.3 On At Least and Compromises

This sub-chapter is dedicated to another property of optative constructions – the prototypical connection to at least. The core observation can be summarized in two steps. First, we notice that cross-linguistically optatives employ elements that roughly mean ‘at least’, as illustrated in (719)$^{123}$ for Serbian. (We will see more examples soon.)

(719)a. Da je Jovan makar poslušao Mariju! Serbian
that be.3sg John at.least listened Mary.acc
‘If at least John had listened to Mary!’

b. Makar je Jovan poslušao Mariju.
at.least be.3sg John listened Mary.acc
‘At least John listened to Mary.’

Second, we observe that the connection between optativity and at least is far from coincidental. Apart from the fact that, as we will see, a wide range of languages exhibit this connection, we can also observe the inverse connection when looking at some diachronic evidence. Historically, the Middle Greek optative marker makárie ‘happy, favorable (vocative)’ became a loan word into several European languages, Including

123 It is worth pointing out that (719b) is not an entirely innocent example as it stands, as we are dealing with at least that takes propositional scope, a fact that will become crucial in this sub-section.
Italian, Romanian, Serbian, Slovenian, Old Spanish and Occitan (Diez 1887, Buchi 2008). The Modern Greek cognate *makari* only has an optative meaning:

(720) **Makari** o John na akusi tin Mary!  
*Modern Greek*  
*Makari* the John subj listened the Mary.acc  
‘If only John had listened to Mary!’

Importantly, as we have seen in (719) above, there are languages such as Serbian (but also Romanian and Slovenian), where the cognates of Greek *makari* have newly acquired an ‘at least, even’ component, not present in the Greek original. This is particularly insightful as these languages have still partly or fully maintained the original optative function of *makari*, as shown in (719) above, which illustrates both uses.

We thus find a two way connection. On the one hand, *at least* is cross-linguistically a prototypical marker of optativity. On the other hand, there is evidence that diachronically pure optative markers such as Middle Greek *makárie* have acquired the additional meaning of *at least*. But why? – The core puzzle to be addressed in this chapter is how to account for the strong correlation between *at least* and optativity.

In what follows, I first illustrate the degree to which this puzzle holds, by surveying a core set of languages that apparently employ canonical *at least* in optatives, in section 6.3.1. I then introduce intriguing data from languages that superficially do not seem to pattern as nicely, in section 6.3.2. I conjecture that such languages may have designated lexical items to express the meaning of so-called concessive *at least* and proceed to review our current knowledge on concessive *at least* in section 6.3.3. Finally, in section 6.3.4, I argue that optative *at least* is always concessive *at least* and that the initial puzzle arises because many languages exhibit an ambiguity in the lexical item that they use.

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124 In Ancient Greek, *makarié* can be used to address someone as in *o makarié Kriton* ‘my dear Crito!’ (from Plato’s dialogue *Crito*), or more generally, *o makarié* ‘my good sir, my dear sir’ (cf. Liddell, Scott, Jones, accessible online at http://www.perseus.tufts.edu/hopper/). This suggests that *(o) makarié* in optatives may actually mean ‘Oh dear!’
6.3.1 *At Least or not At Least? – Unearthing a cross-linguistic connection*

The purpose of this section is to survey evidence that another prototypical particle that we find in optatives is *at least*. As a starting point, we notice that some languages use the same element in optatives that we find in (721). I will illustrate these first and state the puzzle that we need to solve. I will then show that there are other languages that use an element that appears to mean ‘at least’ but cannot be used in (721). I discuss these languages next; I will then draw some generalizations and proceed to an analysis.

(721) a. There are *at least* 5 apples in this bag.
   b. In the traffic accident, there were *at least* 5 casualties.

Languages that use an element in optatives that can also be used in (721) (and similar constructions) include German, Icelandic, Czech, Serbian/Croatian, Italian, Spanish, Portuguese, Catalan, Greek and Hebrew. As we will see, German is however a borderline case, as we can use the optative *at least* only (to a limited extent) in (721a) and not in (721b); more on this in section 6.3.2.

(722)a. Wenn Hans *wenigstens* auf Maria gehört hätte! *German*
   if Hans at.least to Maria listened had
   b. Kdy-by *aspoň* Honza poslechl Marii! *Czech*
      when-subj.3 at.least Honza listened.pst.ptcp Marie.acc
   c. Da je Jovan *barem* (po)slušao Mariju! *Serbian/Croatian*
      that be.3sg John at.least listened Mary.acc
   d. Se John avesse *almeno* ascoltato Maria! *Italian*
      if John had at.least listened.to(past.subj) Mary
   e. Si Juan hubiera *al menos* escuchado a Maria! *Spanish*
      if Juan had.sub.past at least listened to Mary
   f. Se *ao menos* o João tivesse ouvido a Maria! *Portuguese*
      if at.the least the John had listened.to the Mary
   g. Si *almenys* hagués escoltat (a) la Maria! *Catalan*
      if at.least had.subjunctive listened to the Mary
h. An **toulachiston** o John iche akusi tin Mary!  *Greek*
   if at.least the John.nom had.3sg listened the Mary.acc
i. lu John haya **le-faxot** makSiv le-Mary!  *Hebrew*
   if.cf John be.past.3sg to-less listen.pres.3sg to-Mary
j. Ef Jón hefði **aò minnsta kosti** hlustað á Mariu!  *Icelandic*
   if John had at least choice listened toMary
   lit. ‘If John/he had at least listened to Mary!’

Relevant examples that show that we are dealing with the same *at least* that we find in (721) are given below. (Native speakers of German will already notice a slight dispreference for *wenigstens* ‘at least’, coupled with the intuition that *wenigstens* ‘at least’ conveys a positive evaluation. I will come back to this, as it is crucial for my analysis. For Icelandic, a relevant example is given in (724j).)

(723)a. In diesem Sack sind *wenigstens* / **mindestens** fünf Äpfel.  *German*
   in this bag are at.least at.least five apples
b. V této tašce je aspoň pět jablek.  *Czech*
   in this.loc bag.loc is.sg at.least five.nom apples.gen.pl
c. U ovoj torbi ima **barem** pet jabuka.  *Serbian/Croatian*
   in this bag have.3s.pres at.least five.apples
   there are at.least four apples in this bag
d. Ci sono **almeno** quattro mele in questa borsa.  *Italian*
   there are at.least four apples in this bag
e. Hay **al menos** cuatro manzanas en esta bolsa.  *Spanish*
   there are at least four apples in this bag
f. Há **ao menos** quatro maçãs nessa/nesta cesta/sacola.  *Portuguese*
   there are at least four apples in this bag
g. En aquesta bossa hi ha **almenys** cinc pomes.  *Catalan*
   in this bag there have at.least five apples
h. Afti i tsanda perixi **tulachiston** tesera mila.  *Greek*
   this the bag contains.3sg at.least four apples
i. ba-sal ha-ze yeS **le-faxot** arba’a tapux-im  *Hebrew*
   in.the-basket the-this exist at-least four.masc apple.masc-pl
   ‘There are four/five apples in the basket.’
Importantly, these languages can also use this element in contexts that do not imply a positive evaluation. German is an exception here, which, as indicated above, will become relevant later.

(724)a. Bei dem Unfall gab es mindestens / #wenigstens zehn Tote.  
(724)b. Při té nehodě zemřelo aspoň pět lidí.  
(724)c. U sabračajnoj nesreći je bilo barem pet žrtava.  
(724)d. Nell’ incidente automobilistico ci sono stati almeno 5 vittime.  
(724)e. En el accidente de tráfico, hubo al menos cinco víctimas.  
(724)f. No accidente de carro, ao menos cinco pessoas morreram.  
(724)g. En l’accident de cotxe hi va haver almenys cinc accidentats.  
(724)h. Sto αυτοκινητιστικό τυχαίο, σκοτώθηκαν τουλάχιστον τελείως περίπου.  
(724)i. be-te’unat ha-drax-im hayu le-faxot xamiSa harug-im Hebrew in-accident the-way-pl exist.masc-pl at-least five.masc casualty.masc-pl  
(724)j. Í bílslysinu voru að minnsta kosti fimm dauðsföll.  

Let me now move on to a broader range of languages, which pattern in a slightly different way. I then proceed to propose a solution for this puzzle.

6.3.2  At Least the plot thickens…

This is a good place to dwell on German for a moment. German differs from the other languages surveyed above in that wenigstens ‘at least’ (as opposed to mindestens ‘at least’) implies a positive evaluation, (725) (an observation shared by Gast 2011). In the
next section, I take this to be an indication that the \textit{at least} in optatives is an instance of Nakanishi & Rullmann’s (2009) \textit{concessive at least}, which conveys a positive evaluation of the modified proposition.

\textit{at the accident gave it at.least at.least} five survivors  
‘There were at least five survivors in the accident.’

b. Bei dem Unfall gab es \textit{wenigstens} / mindestens fünf Tote.  
\textit{at the accident gave it at.least at.least} five deads  
‘There were at least five casualties in the accident.’

While Serbian (and Croatian) \textit{barem} ‘at least’ does not seem to have this property, it appears that \textit{makar} ‘at least’ may have a tendency towards a concessive \textit{at least} reading, as it is somewhat marked in the negative context.

(726)a. Da je Jovan \textit{makar} poslušao Mariju! \textit{Serbian}  
\textit{that be.3sg John at.least listened Mary} acc  
‘If at least John had listened to Mary!’

b. U sabračajnoj nesreći je bilo \textit{barem} / \textit{makar} pet žrtava.  
\textit{in traffic accident was be.3s.past at.least at.least} five casualties  
‘There were at least five casualties in the accident.’

c. \textit{Barem} / \textit{makar} 5 studenata nije pološilo ispit.  
\textit{at.least at.least} 5 students did-not pass exam  
‘At least 5 students didn’t pass the exam.’

d. \textit{Makar} je Jovan poslušao Mariju.  
\textit{at.least be.3sg John listened Mary} acc  
‘At least John listened to Mary.’

In light of German and Serbian, it seems adequate to generalize and assume that \textit{at least} in optatives is always concessive \textit{at least} in the above languages. While I cannot give a detailed discussion of each individual language and will largely focus on German as a case study, the following languages further support this view.

Extending the empirical scope, we find languages in which the \textit{at least} in optatives cannot occur in contexts like (723) and (724) at all. What we find in such languages is
that the optative *at least* occurs in one or more of the following contexts. First, it sometimes occurs in negative or modal contexts (where it is equivalent to English *even*); or, second, it sometimes occurs as a complementizer meaning ‘although’ (which indicates a semantic connection to German *doch* and Dutch *toch*, which I discuss in section 6.4. However, the element that occurs as optative *at least* can always also have the function of Nakanishi & Rullmann’s (2009) concessive ‘at least’. Importantly it often falls into more than one of these categories within a language, as we see below, indicating a fundamental connection between such meanings as the meaning of ‘even’, the meaning of ‘although’ and the meaning of concessive *at least*\(^{125}\). Let me review a number of languages in turn.

Let us start with Russian. First of all, we observe that *xotja* ‘at least’ occurs in optatives, (727a), but is ungrammatical in the neutral *at least* cases that I tested above, cf. (727b+c).

\[(727)\]
\[
\text{a. Esli by Vanja } \textbf{xotja} \text{ by poslusa-l Mash-u! Russian} \\
\text{if subj Vanja.nom at.least subj listen-past.m.sg Masha-acc} \\
\text{‘If at least Vanja had listened to Masha!’} \\
\text{b. V etoj muke po krajnej mere / kak minimum / *xotja chetyre jabloka. in this bag at.least as minimum at.least four apples} \\
\text{‘In this bag, there are at least four apples.’} \\
\text{c. V avariii pogiblo po krajnej mere / kak minimum / *xotja pjat’ chelovek. in accident died at.least as minimum at.least five men} \\
\text{‘At least five people died in the car accident.’} \\
\]

Strikingly, we do find cases where *xotja* ‘at least’ can occur meaning *at least*, (728a+b), and as Ionin (2001) remarks, *xotja* ‘at least’ is bad in non-emotive clauses. This leads me to conjecture that *xotja* ‘at least’ like German *wenigstens* ‘at least’ only has a concessive reading, in accordance with the analysis that I posit below for *at least* in optatives. I will come back to this later.

\(^{125}\) See Rullmann & Nakanishi (2009) on the connection between *even* and *at least*. 

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(728) a. **(Xotja by) ODIN mal’čik videł KAŽDUJU devočku.**
    at.least one boy saw every girl
    ‘At least one boy saw every girl.’
    (Ionin 2001:26, Stepanov & Stateva 2009:178, emphasis mine)

b. **Bud’ xot’ nemnogo vnmatelen.**
    be at.least a.little attentive
    ‘Be at least a little attentive.’
    (Iordanskaja & Mel’čuk 2004:17, emphasis and glosses mine)

c. **Nu on xotj/xotja by vyigral chto-to!**
    well he.nom at.least won:m.sg something
    ‘Well, at least he won something!’

Even more interestingly, *xotja* ‘at least’ also has the concessive meaning ‘although, even though’, (729), which shows a transition from being an *AT LEAST* type element to a *DOCH* type element. We will see the relevance of this observation in the next chapter.

(729) a. **Moi druz’ja nikogda ničego ne čitajut. Xotja èto ne sovsem tak.**
    my friends never nothing not read although this not entirely so
    ‘My friends never read anything. Well, that’s not quite true. […]’
    (Neeleman & Titov 2009:516, emphasis mine)

b. **He has already read (at least some of The Fortress once)…**
    Xotja on ne do-čita-l do konca.
    even.though he not PF-read-PST.3s until end
    ‘Even though he did not finish it.’
    (Altshuler 2010:78, emphasis and context line mine)

c. **Čemodan tjažēlyj/lēgkij, xotja i ne očen’**
    suitcase light/heavy although prt not very
    ‘The suitcase is light/heavy, although not very.’
    (Iordanskaja & Mel’čuk 2004:9, emphasis and glosses mine)

Russian thus fits the picture that we have constructed so far; *xotja* ‘at least’ seems to share semantic content both with concessive *at least* and with German *doch* (a contrast marker).
Let us now have a look at Polish. Polish also seems to employ a variant of ‘at least’ in optatives that exclusively has the concessive reading. As shown in (730), *co najmniej* ‘at least’ must be used in order to achieve the intended neutral reading; *chociaż* ‘at least’ is possibly but entails a positive evaluation of the event – it only has the concessive reading.

(730) a. Gdyby / Żeby Jan **chociaż** (po)słuchał Marii! Polish
   if if John **at.least** listen.(perf.)pret.3sg.m Mary.gen.nom.f
   ‘If at least Jan had listened to Mary!’

   b. W torbie są **co najmniej** / (#)**chociaż** cztery jabłka.
      in bag are at least at.least four apples
      *co najmniej* ⇒ ‘In this bag, there are at least four apples.’
      *chociaż* ⇒ ‘Luckily, there were four apples in the bag.’

   c. W wypadku (samochodowym) było **co najmniej** / (#)**chociaż** pięć ofiar.
      in accident car was at least at.least five casualties
      *co najmniej* ⇒ ‘At least five people died in the car accident.’
      *chociaż* ⇒ ‘It is good that there were five casualties (more would have been better).’

The fact that *chociaż* ‘at least’ has a concessive reading is further supported by the fact that the most natural context for *chociaż* is in clauses like (731).

(731) **No, **chociaż coś wygraliśmy Polish
   well at.least something won.2pl.past
   ‘Well, at least you won something.’

As with Russian *xotja* ‘at least’, Polish *chociaż* ‘at least’ (which is possibly a cognate) exhibits semantic drift and can also be used to mean ‘although’.

(732) a. Kupił cukier, **chociaż** miał go w domu. Polish
   bought sugar although had it in home
   ‘He bought sugar, although he had it at home.’
   (http://pl.wiktionary.org/wiki/chociaż, verification courtesy of Bartosz Wiland)

   b. Jan nie dostał pracy, **chociaż** chiał.
      John not got job although tried
      ‘John didn’t get the job, although he tried.’
Finnish and Romanian are somewhat more difficult to integrate into our present picture. Let me first briefly review Finnish. First of all, we observe that *edes* ‘at least’, which is the ‘at least’-type item that we find in optatives, (733a), also has a use as an *even*-type NPI, cf. (733c) versus (733b). It does not occur in canonical ‘at least’ contexts, (733b+d).

(733) a. olisi-pa John *edes* kuunnellut Maria!  
   be.cond-PA John at.least listen Mari.part  
   ‘If only John had at least listened to Mary!’

   b. tässä pussissa on ainakin / vähintään /*edes* neljä omenaa  
      this.iness bag.iness is.3sg at.least at.least at.least at.least four apple.part  
      ‘There are at least four apples in this bag.’

   c. tässä pussissa ei ole *edes* neljää omenaa  
      this.iness bag.iness not be even four apple.part  
      ‘In this bag, there are not even four apples.’

   d. Auto-onnettomuudessa kuoli ainakin/vähintään/*edes* viisi ihmistä  
      car-accident.iness died.3sg at.least/at.least/at.least five people.part  
      ‘In the car accident, at least five people died.’

In modal contexts, *edes* ‘at least’ can have both an *EVEN*-type interpretation (if it is in the scope of negation), (734a), as well as an *AT LEAST*-type interpretation (if it is not in the scope of negation), (734b). Finally, we see that *edes* ‘at least’ again also has a concessive *at least* meaning, (734c); it is thus an element that only expresses concessive *at least* and not canonical *at least*.

(734) a. Älä *edes* kuvittele!  
   don’t even think.imperative  
   ‘Don’t you *even/*at least think!’

   b. Voisit *edes* lähettää hänelle kortin.  
      can.cond at.least send him.all card.gen  
      ‘You could *at least/#even* send her/him a card.’

(http://en.wiktionary.org/wiki/edes, verification courtesy of Mikko Kupula)

c. No, voitti(han) hän *edes* jotakin.  
   well win(prt) he at.least something  
   ‘Well, at least he won something!’

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Romanian patterns very much like Finnish, with măcar, the optative ‘at least’-type element, (735a) also behaving as an NPI, (735c) versus (735b+d).

(735) a. Dacă Jon măcar ar fi ascultat de Mary! Romanian
    if Jon at.least had listened of Mary
        ‘If only John had at least listened to Mary!’

    b. Sunt cel putin/*măcar patru mere in punga asta.
        are at least at.least four apples in bag this
        ‘There are at least four apples in this bag.’

    c. Nu am nici măcar 4 mere.
        not have not even four apples
        ‘I don’t even have four apples’

    d. In accidentul de masina au fost cel putin/*măcar cinci accidentati.
        in the.accident of car have been at least at.least five casualties
        ‘In the car accident, there were at least five casualties.’

Again, if we look past the initial examples, we see instantly that măcar ‘at least’ can occur outside of NPI-licensing contexts, with the meaning of concessive at least, (736).

This again indicates that măcar ‘at least’ has the meaning of concessive at least, but not the meaning of canonical at least.

(736) Măcar a castigat ceva! Romanian
    at.least has won something
        ‘At least he has won something!’

So, it does seem in place to draw an overall conclusion that all of the languages discussed above employ an AT LEAST in optatives that can also mean AT LEAST in other contexts – either (in many languages) canonical AT LEAST, or (in German, Russian, Polish, Finnish and Romanian) concessive AT LEAST. I propose that AT LEAST in optatives is always an instance of concessive AT LEAST. This conclusion will be backed up further in the next sections.
6.3.3 The Missing Link: Concessive At Least

The purpose of this section is to review our knowledge of concessive at least and to make the connection between concessive at least and optative at least. Nakanishi & Rullmann (2009) discuss the ambiguous nature of English at least. They argue that English at least has two readings, which they call its epistemic reading, (737), and its concessive reading, (738).

(737) epistemic at least  
\[ ||\text{at least}||(C)(p)(w) \text{ is defined iff } \exists w'[\text{Epist}(w,w') \land \exists q \in C [q > p \land q(w') = 1]] \]

“CI / Presupposition: The speaker is unsure whether a higher scalar value holds or not.”

If defined, then
\[ ||\text{at least}||(C)(p)(w) = 1 \text{ iff } \exists q \in C [q \geq p \land q(w) = 1] \]

“Truth Conditional Content: The modified proposition or a higher scalar value holds.”

(slightly modified from Nakanishi & Rullmann 2009, paraphrases are mine)

(738) concessive at least
\[ ||\text{at least}||(C)(p)(w) \text{ is defined iff } \forall r, r' \in C [r' > r \iff r' \text{ is preferred to } r] \]

“CI / Presupposition 1: Relevant alternatives are ordered according to preference.”

\[ \exists q \in C [q > p] \]

“CI / Presupposition 2: There is a salient alternative that is more preferable than p.”

\[ \exists q \in C [q < p] \]

“CI / Presupposition 3: There is a salient alternative that is less preferable than p.”

If defined, then
\[ ||\text{at least}||(C)(p)(w) = p(w) \]

“Truth Conditional Content: Concessive at least is truth-conditionally vacuous.”

(slightly modified from Nakanishi & Rullmann 2009, paraphrases are mine)

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126 Nakanishi & Rullmann (2009) treat the uncertainty contribution as a conventional implicature, whereas I treat it as a definedness condition. In the scope of my project, this distinction is not at stake, which is why I uniformly model such non-truth-functional meanings as definedness conditions / presuppositions. Note: Nakanishi & Rullmann (2009) acknowledge Krifka (1999), Geurts & Nouwen (2007) and Büring (2008) as the basis of their analysis.
The core difference is that epistemic at least conveys epistemic uncertainty as to which focus alternative holds, (739a), whereas concessive at least conveys a commitment to the expressed proposition, coupled with a positive evaluation, (739b).

(739)a. Mary on at least a silver medal.  
⇒ The speaker is uncertain about what medal Mary won.

b. Mary didn’t win a gold medal, but at least she won a silver medal. (concessive)  
⇒ Although winning a silver medal is less preferable than winning a gold medal, a silver medal is satisfactory.

(Nakanishi & Rullmann 2009)

Let me briefly review the properties of concessive at least and then proceed to argue that optative at least is always concessive at least.

First of all, Nakanishi & Rullmann argue that languages differ in which lexical items have an epistemic reading and which lexical items have a concessive reading. They present the overview in (740), where E stands for epistemic reading and C stands for concessive reading.

<table>
<thead>
<tr>
<th>language</th>
<th>item</th>
<th>only E</th>
<th>E or C</th>
<th>only C</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>at least</td>
<td>–</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>at the very least</td>
<td>✓</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Dutch</td>
<td>tenminste</td>
<td>–</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>minstens, op z’n minst</td>
<td>✓</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Japanese</td>
<td>sukunaku-to-mo</td>
<td>–</td>
<td>✓</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>-dake-demo</td>
<td>–</td>
<td>–</td>
<td>✓</td>
</tr>
</tbody>
</table>

(Nakanishi & Rullmann 2009)

In light of this distinction, I will argue that the languages that exhibit optative at least always employ concessive at least in optatives, i.e. the element that we seen in optatives either has both readings or only the concessive reading, (741).
While this will not be useful for our investigation (given that English does not allow for *at least* in optatives), Nakanishi & Rullmann (2009) present the data set in (742), which I report as it is useful for the reader to probe her/his own intuitions.

(742)  

a. Mary won **at least** a silver medal.  
     *only* E  

b. Mary **at least** won a silver medal.  
     *E or C*  

c. **At least** Mary won a silver medal.  
     *prefer C*  

d. Mary won a silver medal **at least**.  
     *E or C*  

(Nakanishi & Rullmann 2009)

Much more importantly, as we will be employing this as a diagnostic for concessive readings, Nakanishi & Rullmann show that epistemic readings are odd whenever we know that the higher values on a salient scale do not hold, (743)+(744).

(743)  

a. # Mary didn’t win a gold medal, but she won **at least** a silver medal.  
     *(only E)*  

b. Mary didn’t win a gold medal, but **at least** she won a silver medal.  
     *(✓ C)*  

(Nakanishi & Rullmann 2009)
The following examples briefly illustrate four further properties of concessive *at least*, which I will come back to later.

First, utterances with concessive *at least* entail the denoted proposition, which is not the case with epistemic *at least*.

(744)  a. Mary doesn’t have three children, but she has **at least** two.   \((\text{only } E)\)

   b. Mary doesn’t have three children, but **at least** she has two.   \((\checkmark C)\)

   (Nakanishi & Rullmann 2009)

Second, concessive *at least* conveys that higher values are preferable over lower values, which is not the case for epistemic *at least*.

(745)  a. Mary is **at least** an associate professor.   \((E)\)

   \[\not\Rightarrow\] Mary is an associate professor.

   b. **At least** Mary is an associate professor.   \((C)\)

   \[\Rightarrow\] Mary is an associate professor.

   (Nakanishi & Rullmann 2009)

Third, concessive *at least* conveys that the speaker (or another salient attitude holder) is ‘settling for less’, in a way in which epistemic *at least* does not convey this.

(746)  a. Mary fired **at least** five employees.   \((E)\)

   \[\Rightarrow\] No preference.

   b. **At least** Mary fired five employees.   \((C)\)

   \[\Rightarrow\] Better to fire more employees.

   (Nakanishi & Rullmann 2009)

Third, concessive *at least* conveys that the speaker (or another salient attitude holder) is ‘settling for less’, in a way in which epistemic *at least* does not convey this.

(747)  a. Phelps won **at least** eight gold medals.   \((E)\)

   \[\Rightarrow\] Neutral.

   b.\# **At least** Phelps won eight gold medals.   \((C)\)

   \[\Rightarrow\] Winning eight gold medals falls short of an intended goal or standard.

   (Nakanishi & Rullmann 2009)
Fourth and finally, concessive *at least* maintains the same scalar implicature that we find in clauses without *at least*.

(748)  

a. Mary wrote **at least** four novels. \( (E) \)  
\[ \Rightarrow \text{No scalar implicature.} \]

b. **(At least)** Mary wrote four novels. \( (C) \)  
\[ \Rightarrow \text{Mary didn’t write more than 4 novels.} \]

(Nakanishi & Rullmann 2009)

The next section is dedicated to connecting optative *at least* to Nakanishi & Rullmann’s concessive *at least*.

6.3.4 A Generalized Concessive *At Least* for Optatives and Beyond

The proposal that I wish to defend is that optative *at least* always has the semantics of concessive *at least*, as given in (749). I differ from Nakanishi & Rullmann (2009) in assuming that *at least* combines with a contextually provided scale argument \( S \). This has the advantage that we now have a means of identifying the scale on \( EX \) with the scale argument of *at least*, and it further allows us to connect \( S \) on *at least* to different attitude holders.

(749)  
\[ ||\text{at least}_c||^{g,c} = \lambda S. \lambda p : \]
\[ S \text{ is a bouletic ordering } \backslash \text{BOULETIC} \]
\[ \text{“Presupposition 1: The contextually salient scale is a bouletic scale.”}^{127} \]
\[ \exists r \in g(C) \ [r >_S p] \land \exists q \in g(C) \ [p >_S q] . \text{SECOND CHOICE} \]
\[ \text{“Presupposition 2: With respect to the relevant preferences, } p \text{ is good but not optimal.”} \]
\[ p \text{ IDENTITY} \]
\[ \text{“Truth Conditional Content: Concessive *at least* is truth-conditionally vacuous.”} \]

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127 Recall that in English, optative *only* seems to have acquired such a presupposition as well, as shown in (583).
The assumption that optative *at least* is an instance of concessive *at least* has several implications. Most crucially, it implicates that optatives will always use an *at least* type element that has either only a concessive reading or both a concessive reading and an epistemic reading; optatives will never use an *at least* type element that has only an epistemic reading. We have already seen in the section before last that Russian, Polish, Romanian, Finnish, German and Serbian have *at-least*-optatives that employ a specialized concessive at least. The core question that now arises is the following. We know that many languages (like Spanish, Portuguese, Catalan, etc) use the same *at least* in epistemic *at least* contexts and in optatives. Is there evidence that in all these languages said *at least* type element also has a concessive reading? I will discuss this in a moment. But first, it is worth casting a second look at German, which is the main object language in this dissertation. What we find is that German exhibits roughly the pattern that we expect. First, we see that *wenigstens* ‘at least’ has a concessive reading, whereas *mindestens* ‘at least’ has only an epistemic reading, cf. (750a). Second, we see that *wenigstens* ‘at least’ has only a concessive reading; the positive implicature (it is good that…) cannot be canceled, cf. (750b). So we can conclude that German has both a designated concessive *at least* (*wenigstens*) and a designated epistemic one (*mindestens*).

(750)a. Er hat keine Goldmedaille gewonnen, aber *wenigstens* / *mindestens*
he has no gold.medal won but at.least(C) at.least(E)
eine Silbermedaille.
a silver.medal

‘He didn’t win a gold medal, but at least he won a silver medal.’

b. Bei dem Unfall gab es *wenigstens* / *mindestens* fünf Tote.
at the accident gave it at.least(E) at.least(C) five deads

‘There were at least five casualties in the accident.’

As expected, only the concessive *at least* can be used in optatives, whereas the purely epistemic *at least* is incompatible.

(751) a. Wenn Hans *wenigstens* eine Bronzemedaille gewonnen hätte!
if Hans at.least(C) a bronze.medal won had
‘If at least Hans had won a bronze medal!’ (optative)
b. Wenn Hans mindestens eine Bronzemedaille gewonnen hätte!
   if Hans at.least(E) a bronze.medal won had
   ‘If Hans had won at least a bronze medal…’ (incomplete conditional)

Note that zumindest ‘at least’ is an interesting in-between case, as it does have a concessive reading, (752a), as well as an epistemic reading, (752b), yet it is not sufficient to license optativity, (752c). I interpret this as indicating that prototypical optative particles must in many cases be able to disambiguate between a conditional reading and an optative reading, and zumindest ‘at least’ is too frequently used in the epistemic non-concessive sense to achieve this feat.

(752)a. Er hat keine Goldmedaille gewonnen, aber zumindest eine Silbermedaille.
   he has no gold.medal won but at.least a silver.medal
   ‘He didn’t win a gold medal, but at least he won a silver medal.’

   b. Bei dem Unfall gab es zumindest fünf Tote.
      at the accident gave it at.least five deads
      ‘There were at least five casualties in the accident.’

   c. ??Wenn Hans zumindest eine Bronzemedaille gewonnen hätte!
      if Hans at.least a bronze.medal won had
      ‘If at least Hans had won a bronze medal!’

After this brief discussion of German, let us review the languages discussed above to show that the evidence is consistent with an analysis that assumes that they all use concessive at least in optatives (and not epistemic at least). Specifically, we have seen above that languages like Spanish, Portuguese, Catalan, etc, use an element in optatives that does have an epistemic at least reading. I now show that the same element always also has a concessive at least reading. The following examples from Hebrew, Greek, Czech and Spanish indicate that this is the case128.

128 Note that this diagnostic is not perfect. The examples in (i)+(ii) show that Finnish edes does not pass these diagnostics even though it clearly has a concessive at least reading, as in (iii). We thus need to be careful not to overrate false negatives. (Another language that yields false negatives here is Portuguese.) I interpret these facts as indicating that concessive at least may sometimes just be blocked by a more specific concessive construction type.
(753)a. lu John haya le-faxot makSiv le-Mary! Hebrew
    if.cf John be.past.3sg to-less listen.pres.3sg to-Mary
    lit. ‘If John/he had at least listened to Mary!’

    b. Mary lo zaxta be-medalyat zahav, aval le-faxot hi zaxta be-medalyat
       Mary not won in-medal gold but at-least she won in-medal silver
       ‘Mary didn’t win a gold medal, but at least she won a silver medal.’

    c. le-Mary eyn SloSa yeladim, aval le-faxot yes l-a Snayim.
       to-Mary not.exist three children but at-least exist to-her two
       ‘Mary doesn't have three children, but at least she has two.’

(754)a. Kdy-by aspoň Honza poslechl Mariii! Czech
    when-subj.3 at.least Honza listened.pst.ptcp Marie.acc
    lit. ‘If John/he had at least listened to Mary!’

    b. Marie nevyhrála zlatou medaili, ale vyhrála aspoň stříbrnou.
       Marie neg:won gold medal but won at.least silver
       ‘Mary didn’t win a gold medal, but at least she won a silver medal.’

    c. Marie nemá tři děti, ale má aspoň dvě.
       Marie neg:has three children but has at.least two
       ‘Mary doesn't have three children, but at least she has two.’

(755)a. An tulachiston o John iche akusi tin Mary! Greek
    if at.least the John.nom had.3sg listened the Mary.acc
    lit. ‘If John/he had at least listened to Mary!’

    b. I Maria dhen kerdhise chriso metalio, ala tulachiston kerdhise
       the Maria not won gold medal but at.least won
       arjiro/asimenjo (metalio) silver medal
       ‘Mary didn’t win a gold medal, but at least she won a silver medal.’

   i. Mari ei voittanut kultamitalia, mutta hän voitti sentään/*edes hopeaa
      Mari.nom neg win goldmedal, but she won nevertheless/*at.least silver
   ii. Marilla ei ole kolmea lasta, mutta hänellä on (niitä) sentään/*edes kaksi
       Mari.ades neg be three children.part but she.ades is (them)nevertheless/*at.least two
   iii. no, voitti(han) hän edes/sentään jotakin
       well win(-han) he at.least/nevertheless something
c. I Maria dhen echi tria pedhja, ala **tulachiston** echi dhio.
   the Maria not has three children but at.least has two
   ‘Mary doesn't have three children, but at least she has two.’

   (756)a. Si Juan **al menos** escuchado a María! **Spanish**
   if Juan had.sub.past at least listened to Mary
   lit. ‘If John/he had at least listened to Mary!’

   b. Maria no gano una medalla de oro, pero **al menos** gano una medalla
   Maria not won a medal of gold but at least won a medal
   de plata.
   of silver
   ‘Mary didn’t win a gold medal, but at least she won a silver medal.’

   c. Maria no tiene tres hijos, pero **al menos** tiene dos.
   Maria not has three sons but at least has two
   ‘Mary doesn't have three children, but at least she has two.’

At this point it is worth showing that this test also works for languages that have an exclusively concessive *at least* in optatives. We have seen above that Romanian has an element măcar ‘at least’, which occurs in optatives but otherwise does not appear to have the meaning and function of *at least* (epistemic *at least*, that is); at the same time it can occur in negative contexts, meaning even.

   (757) a. Dacă Jon **măcar** ar fi ascultat de Mary! **Romanian**
   if Jon at.least had listened of Mary
   ‘If only John had at least listened to Mary!’

   b. Sunt cel putin/ **măcar** patru mere in pungă asta.
   are at least at.least four apples in bag this
   ‘There are at least four apples in this bag.’

   c. Nu am nici **măcar** 4 mere.
   not have not even four apples
   ‘I don’t even have four apples’
If *măcar* ‘at least’ really has the semantics of concessive ‘at least’, we expect it to occur in the prototypical contexts from Nakanishi & Rullmann (2009). This prediction is carried out, as shown in (758).

(758)a. Maria nu a câștigat medalia de aur, dar *măcar* a câștigat medalia de argint.  
   ‘Mary didn’t win a gold medal, but at least she won a silver medal.’

b. Maria nu are trei copii, dar *măcar* are doi.  
   ‘Mary doesn’t have three children, but at least she has two.’

Similarly, Polish *chociaż* ‘at least’, which we saw to occur in optatives, clearly passes the test.

(759) a. Gdyby / Żeby Jan *chociaż* (po)słuchał Mariii!  
   ‘If at least Jan had listened to Mary!’

b. Marie nie zdobyła złotego medalu, ale *chociaż* zdobyła srebrny.  
   ‘Mary didn’t win a gold medal, but at least she won a silver medal.’

c. Marie nie ma trojga dzieci, ale ma *chociaż* dwoje.  
   ‘Mary doesn’t have three children, but at least she has two.’

We thus have conclusive evidence that optatives employ concessive *at least* (as opposed to epistemic *at least*). The next section now addresses the role of concessive *at least* in optatives.

### 6.3.5 Mitigating Expressives: On the role of *At Least* in Exclamations

What is the role of concessive *at least* in optatives? In this section, I argue that it essentially acts as a modulator, just as *only* does (and *doch*, as we will see). It conveys the
information that the speaker considers the expressed proposition satisfactory, but not optimal. This follows from the ‘settling for less’ component of the semantics of concessive at least that Nakanishi & Rullmann (2009) observe, cf. (760).

\[(760)\]  
\[||\text{at least}||^{E\cdot} = \lambda S. \lambda p : S \text{ is a bouletic ordering} \land \text{BOULETIC} \]

**Presupposition 1:** The contextually salient scale is a bouletic scale.”

\[\exists r \in g(C) [r >_S p] \land \exists q \in g(C) [p >_S q]. \text{SECOND CHOICE}\]

**Presupposition 2:** With respect to the relevant preferences, p is good but not optimal.”

**Identity**

“**Truth Conditional Content:** Concessive at least is truth-conditionally vacuous.”

Focusing on German, we can easily illustrate that this component is present. Consider the following scenario from Villalta (2007); Victoria (the speaker) hopes that Sofia will bring chocolate cake to her picnic. Victoria’s second choice is apple pie and she really hates ice cream.

\[(761)\]

<table>
<thead>
<tr>
<th>preferences</th>
<th>beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>most desirable</em></td>
<td>chocolate cake</td>
</tr>
<tr>
<td></td>
<td>apple pie</td>
</tr>
<tr>
<td><em>least desirable</em></td>
<td>ice cream</td>
</tr>
</tbody>
</table>

(adapted from Villalta 2007:102+103)

What the *optative-at-least-as-concessive-at-least* analysis predicts is that we should be able to use *wenigstens* ‘at least’ if and only if the wish that we express is for the second choice, namely apple pie. By virtue of the fact that a better option must be available, it should not be possible to use *wenigstens* ‘at least’ to express a wish for the first choice, which would be the optimal scenario.
This is indeed the case. As shown in (762), *wenigstens* ‘at least’ can be used when we express a wish for apple pie, (762b), but not when we express a wish for chocolate cake, (762a). Naturally, a wish for vanilla ice cream is independently deviant, (762c).

(762)a. Ach, wenn sie doch /? nur / *wenigstens* einen Schokokuchen gebracht hätte!
   oh if she doch only at.least an chocolate.cake brought had
   ‘If only she had brought an chocolate cake!’

b. Ach, wenn sie ?? doch / nur / *wenigstens* einen Apfelkuchen gebracht hätte!
   oh if she doch only at.least an apple.cake brought had
   ‘If only she had brought an apple cake!’

c. Ach, wenn sie #doch /#nur / #*wenigstens* Vanilleeis gebracht hätte!
   oh if she doch only at.least vanilla.ice.cream brought had
   ‘If only she had brought vanilla ice cream!’

Note that, as predicted by my approach, the contributions of different particles add up (they do not cancel each other). So, any optative that contains *wenigstens* ‘at least’ ends up being a ‘compromise optative’ where the speaker is settling for less. This accounts for the fact that in (763a+b) only a wish for an apple cake is permissible and not a wish for chocolate cake.

(763)a. Wenn sie *doch wenigstens* einen Apfelkuchen/#Schokokuchen gebracht hätte!
   if she doch at.least an apple.cake/#chocolate.cake brought had
   ‘If only she had brought an apple pie/chocolate cake!’

b. Wenn sie *nur wenigstens* einen Apfelkuchen/#Schokokuchen gebracht hätte!
   if she only at.least an apple.cake/#chocolate.cake brought had
   ‘If only she had brought an apple pie/chocolate cake!’

How is the ‘settling for less’ presupposition of *wenigstens* ‘at least’ satisfied in an optative? It follows from the semantics of concessive *at least* that there must be a salient proposition in the context that is more desirable to the speaker. This accounts for the fact that *at-least*-optatives are typically perceived to be deviant in an out-of-the-blue context.

(764) Wenn ich *doch/ nur / #wenigstens* reich wäre!
   if I doch only at.least rich were
   ‘If only I were rich!’
The salient more preferable proposition can be introduced overtly, e.g. by means of a separate optative, as shown in (765) or, a more natural example, in (766).

(765) a. Ach, wenn ich **doch nur** allmächtig und berühmt wäre!
   ‘If only I omnipotent and famous were’
   oh if I doch only omnipotent and famous were
   ‘If only I omnipotent and famous!’

   b. Oder wenn ich **wenigstens** reich wäre!
   or if I at.least rich were
   ‘Or at least if only I were rich!’

   (766) Ach, wenn sie **doch** einen Schokokuchen gebracht hätte!
   ‘If only she had brought an chocolate cake!’
   oh if she doch an chocolate.cake brought had
   ‘If only she had brought an chocolate cake!’

   Oder wenn sie **wenigstens** einen Apfelkuchen gebracht hätte!
   or if she at.least an apple.cake brought had
   ‘Or if at least she had brought an apple cake!’

However, while the better alternative can be overtly given, it is sufficient for such a better proposition to be independently salient in the context, as shown in (767).

   ‘Only quarter to ten? … I feel like I’ve been sitting in this concert for three hours. Well, I’m not used to it … What is it anyway? I’ll have to look at the program … Yes, of course: An oratorio! I meant: A mass. Such things belong into a church! A church also has the advantage that one can leave at any time. – **If at least I had a corner seat!** – So, patience, patience! Even oratorios end at some stage! Maybe it’s very nice, and I’m just not in the mood.’

(A. Schnitzler: *Leutnant Gustl*)
At this point we can now ask: How does *wenigstens* ‘at least’ act as a licensor of optativity? As with *nur* ‘only’, I argue that *wenigstens* ‘at least’ has two functions: First, it can eliminate competing readings for an ambiguous utterance. Second, by virtue of its inherently bouletic and preference-oriented nature, it can make an optative reading salient. Example (768), which is, in the absence of *wenigstens* ‘at least’ ambiguous between an optative interpretation and a polar exclamative interpretation, is disambiguated by virtue of *wenigstens* ‘at least’.

(768) a. Hätte die dem (doch) *wenigstens* tatsächlich das Buch gegeben! 
   had<sub>subj</sub> she him doch at.least indeed the book given  
   lit. Had<sub>subjunctive</sub> she at least indeed given him the book!  
   b. ‘If only she had at least given him the book!’  
   c. *‘[It’s shocking that] she would have at least given him the book!’  

This follows if *wenigstens* ‘at least’ has a scalar argument with a definedness condition that the contextually salient scale is a bouletic scale and the scales on *EX* and *AT LEAST* must be co-bound, as in (769), cf. section 6.2.5. Given that concessive *AT LEAST* requires its scale to be bouletic, the scale on *EX* will also end up being bouletic, eliminating a polar exclamative reading (under which *EX* combines with an inverse likelihood scale). Again, *AT LEAST* “licenses” optativity by virtue of eliminating competing readings. This further strengthens a view under which prototypical optative elements license optativity via a conspiracy (and not directly).
Note that the proposal in (769) supports the idea above that (467) and (468b) are factive optative clauses, as they are exclamations that contain \textit{wenigstens} ‘at least’.

6.3.6 **Interim Summary**

The goal of this section was to show that the connection between \textit{AT LEAST} and optativity is cross-linguistically wide-spread and follows from a uniform analysis of optative \textit{at least} and concessive \textit{at least}. The function of \textit{at least} in optatives is to show a willingness to compromise and at the same time to emphasize the speaker’s desperation in the actual situation (which is undesirable). This is achieved by virtue of the \textit{settling for less} component of concessive \textit{at least}.

6.4 **Wenn ich doch könnte... – A uniform approach to the particle doch**

The third prototypically optative particle that I discuss in this dissertation is German \textit{doch}, which also licenses optativity, as shown in the following example (contrasting it with Dutch \textit{toch}, a close counterpart).

(770)a. Als Jan \textbf{toch} eens naar Marie had geluisterd! \quad \textit{Dutch}^{129}  
if Jan \textbf{TOCH} once to Marie had listened  
‘If only Jan had listened to Marie!’

b.Wenn Otto \textbf{doch} auf seine Mutter gehört hätte! \quad \textit{German}  
if Otto \textbf{DOCH} to his mother listened had  
‘If only Otto had listened to his mother!’

(771)a. Je kunt \textbf{toch} nergens heen. \quad \textit{Dutch}  
you can \textbf{TOCH} nowhere to  
‘You can’t go anywhere, for sure.’ (de Vriendt et al. 1991)

b. Du kannst \textbf{doch} nirgends hin. \quad \textit{German}  
you can \textbf{DOCH} nowhere to  
‘You can’t go anywhere, for sure.’

---

^{129} Dutch differs from German in that \textit{toch} only occurs in optatives in combination with \textit{eens} (literally ‘once’). De Vriendt et al. (1991) compare Dutch \textit{eens} to German \textit{mal}, which also occurs in optatives (typically in non-counterfactual variants), cf. Scholz (1991). I will not discuss this in detail here.
While German *doch* and Dutch *toch* may seem rather exotic, I conjecture that the contrast meaning that they convey is rather typical for optatives. For instance, we have already seen that the Polish concessive *at least, chociaż* ‘at least’ also has a use as a conjunction/complementizer, meaning ‘although’.

(772)a. Gdyby / Žeby Jan *chociaż* (po)słuchał Marii! *Polish*  
   if if John at.least listen.(perf.)pret.3sg.m Mary.gen.nom.f  
   ‘If at least Jan had listened to Mary!’

   b. Jan nie dostał pracy, *chociaż* chiał.  
   John not got job although tried  
   ‘John didn’t get the job, although he tried.’

Similarly, German *doch* has a use as a complementizer/conjunction, meaning roughly ‘however’.

(773) Hans hat den Job nicht gekriegt, *doch* er hat es versucht. *German*  
   Hans has the job not gotten doch he has it tried  
   ‘Hans didn’t get the job; however, he did try.’

For now, I will focus on German, but I maintain that the analysis in this section may be applicable to other languages as well. The analysis I argue for is shown in (774).

(774)  
   \[||\text{doch}||_{\text{g,c,w}} = \lambda p : \exists q \in g(C) \left[ p \neq q \land \neg (p(w) \land q(w)) \right] \land\]
   \text{CONFLICT}
   “Presupposition 1: The modified proposition is in conflict with a salient alternative.”

   \[p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset \lor \neg p \land \text{Dox}_{\text{speaker}}(w) = \emptyset.\]
   \text{FAMILIARITY}
   “Presupposition 2: The modified proposition is resolved (as true or false).”

   \[p\]
   \text{IDENTITY}
   “Truth Conditional Content: *doch* is truth-conditionally vacuous.”
   (based on Grosz 2010, Kratzer & Matthews 2009)

The next section reviews facts on *doch* in declarative statements. I then proceed to posit a uniform analysis for *doch* in optatives and declaratives.
6.4.1 Truth and Conflict – the role of unstressed *doch*

The discussion in this section is based on Grosz (2010, 2011). I will only review some aspects of the discussion in Grosz (2010, 2011) and I refer the reader to these papers for additional information. First of all, we are only interested in the unstressed version of German *doch*, cf. Abraham (1991), Bárány (2009), Doherty (1985, 1987), Jacobs (1991), Karagjosova (2001, 2004, 2008), Lindner (1991), Ormelius-Sandblom (1997), Repp (2009), Thurmair (1989) and Zeevat (2003), as this is the element we find in optatives.

(775)a. Wenn Otto *doch* auf seine Mutter gehört hätte!  
if Otto *DOCH* to his mother listened had
‘If only Otto had listened to his mother!’

b. Wenn Otto *DOCH* auf seine Mutter gehört hätte!
if Otto *DOCH* to his mother listened had
‘If only Otto had listened to his mother!’

It can be shown that unstressed *doch* in declaratives has two functions; the first function is to mark its complement proposition as ‘familiar / old / given / shared / uncontroversial’ and the second function is to convey some notion of ‘contrast / correction’. In this sense, Grosz (2010) argues that we can approximate the meaning of *doch* as in (776).

(776) For any sentence *p*, \(||*doch* \ p||\) (where c is the utterance context) is only defined if:

a. The speaker in *c* takes *p* to be firmly established in \(w_c\) and therefore assumes that it is safe to discard \(\neg p\) as a possible answer to the question of whether *p* or \(\neg p\) holds in \(w_c\).

(based on Kratzer & Matthewson’s 2009 meaning of *ja*)

b. There is a contextually salient proposition *q*, such that
i. *q* is a focus alternative of *p*
ii. the current utterance context *c* entails \(\neg[p and q]\)


If defined, \(||*doch* \ p||\) = \(||p||\).

(Grosz 2010)
The factivity component of *doch* in declaratives, (776a), can be inferred from contrasts such as the following. The particle *doch* (on a par with German *ja*) is used in declaratives whenever the modified proposition is old information and presupposed to be true.

(777) a. *Context: Speaker and hearer are both well aware that the hearer has been to Paris before, and the speaker wants to make this fact salient in order to follow up on it.*

Du warst ja / *doch* / #DOCH / #Ø schon in Paris.
you were ja doch #DOCH #Ø already in Paris
‘You’ve [ja / doch / #DOCH / #Ø] already been to Paris.’

b. *Context: The hearer is an amnesiac and believes that she has never been to Paris. The speaker doesn’t know whether the hearer has been, and discovers an old flight ticket to Paris with the hearer’s name on it.*

Du warst #ja / #doch / DOCH / Ø schon in Paris.
you were #ja #doch DOCH Ø already in Paris
‘You’ve [#ja / #doch / DOCH / Ø] already been to Paris.’

(Grosz 2010)

The contrast/conflict component of *doch*, (776b), manifests itself in examples such as the following.

(778) a. Jan muss nicht kochen. Er hat *doch* abgewaschen.
Jan needs not cook he has *doch* washed.up
‘Jan doesn’t need to cook. He [doch] washed up.’

b. *presuppositions triggered by doch:*

i. The speaker takes \[p Jan washed up\] to be firmly established in \(w_c\).

ii. There is a contextually salient focus alternative of \(p\), namely \[q Jan needs to cook\], and the current utterance context entails \[\neg [p \& q Jan washed up and Jan needs to cook]\]

(Grosz 2010)

(779) a. *Context: I wake up on a Sunday at 6AM, because the neighbors are drilling.*

Heute ist *doch* Sonntag!
today is *doch* Sunday
‘Today is [doch] Sunday!’ (roughly: ‘But today is Sunday!’)
b. *presuppositions triggered by doch:*

i. The speaker takes [\(p \text{ today is Sunday}\)] to be firmly established in \(w_c\).

ii. There is a contextually salient focus alternative of \(p\), namely [\(q \text{ today it’s ok to drill}\)], and the current utterance context entails \(\neg [p \& q \text{ today is Sunday and today it’s ok to drill}]\) (Grosz 2010)

Grosz (2010) argues that *doch* conveys *contradictoriness* between the modified proposition \(p\) and the salient alternative \(q\) (rather than simple contrast). The idea is that a *doch* utterance will always pick the most salient focus alternative from the immediately preceding context, and that a sequence of \(\neg(q) -- \text{doch}(p)\) will always be understood as \(\neg(q) \text{ because } \text{doch}(p)\), where \(q\) is the salient alternative for \(p\). This assumption is motivated by our intuitive understanding of sequences such as (778), though we currently do not have a theory of discourse flow that explains for this connection. Crucially, the idea is that unstressed *doch* is illformed in (780), because the presupposition that *Hans cannot be both atheist and liberal/green* fails in a context where we actually expect that someone (e.g. Hans) who is an atheist is also liberal/green. At this point, it is worth pointing out that the extension to optatives also works if *doch* expresses simple contrast as opposed to contradictoriness. I will thus no longer dwell on this issue here.

(780) a. So gut wie jeder Atheist ist liberal und grün. Hans ist die Ausnahme. As good as every atheist is liberal and green Hans is the exception

Er ist nicht liberal. Er ist nicht grün. -- Er ist (#doch) Atheist!

he is not liberal he is not green he is doch atheist

‘As good as every atheist is liberal and green. Hans is the exception. He is not liberal. He is not green. -- He is (#doch) an atheist!’

b. *problematic presuppositions triggered by doch:*

i. The speaker takes [\(p \text{ Hans is an atheist}\)] to be firmly established in \(w_c\).

ii. There is a contextually salient focus alternative of \(p\), namely [\(q \text{ Hans is liberal and green}\)], and the current utterance context entails \(\neg [p \& q \text{ Hans is an atheist and Hans is liberal and green}]\) (Grosz 2010)
In brief, what we observe is that *doch* has a mediating role with respect to established truth (i.e. what the speaker takes to be established) and conflict (i.e. some proposition in the context that contradicts what the discourse participants should assume to be correct, according to the speaker).

Crucially, at first sight *doch* in optatives seems fundamentally distinct from *doch* in declaratives. While declarative *doch* implies the truth of the modified proposition (it is veridical), (781a), optative *doch* has exactly the inverse property: It implies the falsity of the modified proposition, (781b). One may thus generalize to the worst case scenario and posit a specialized “optative *doch*”, which only occurs in optatives.

(781)  a. Context: I wake up on a Sunday at 6AM, because the neighbors are drilling.

        Heute ist *doch* Sonntag!
        today is *doch* Sunday
        ‘Today is [doch] Sunday!’ (roughly: ‘But today is Sunday!’)
        ⇒ it is presupposed to be **true** that today is Sunday

        b. Ach, wäre heute *doch* Sonntag!
        oh were today *doch* Sunday
        ‘Oh, if only today were Sunday!’
        ⇒ it is presupposed to be **false** that today is Sunday

Grosz (2011) argues that a unified analysis for declarative *doch* and optative *doch* is nevertheless desirable, and proposes that optatives and declaratives are different speech acts. Consequently, declarative *doch* presupposes that the modified proposition is established to be true, whereas optative *doch* presupposes that the modified proposition is established to be desired by the speaker. In the following section, I pursue a different analysis, based on a paradigm not considered in Grosz (2011). The idea is that *doch* is always the same element and it simply presupposes non-contingency, i.e. it presupposes that the modified proposition is either true or false, but it cannot be unresolved for *doch* to be well-formed.
6.4.2 Doch or not Doch? – On the benefits of a uniform approach

I propose that unstressed *doch* uniformly has the analysis in (782), where the conflict presupposition is more or less kept the same as in the preceding section. The familiarity component has, however, been weakened to a disjunction: What is relevant for *doch* to be used is that the modified proposition must be either true or false according to the speaker; *doch* cannot be used if it is unresolved whether its complement proposition is true.

(782) \[\|\text{doch}_c\|^{g,c,w} = \lambda p : \exists q \in g(C) \left[ p \neq q \land \neg [p(w) \land q(w)] \right] \land \ \text{CONFLICT} \]

“Presupposition 1: The modified proposition is in conflict with a salient alternative.”

\[ p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset \lor \neg p \cap \text{Dox}_{\text{speaker}}(w) = \emptyset . \ \text{FAMILIARITY} \]

“Presupposition 2: The modified proposition is resolved (as true or false).”

\[ p \ \text{IDENTITY} \]

“Truth Conditional Content: *doch* is truth-conditionally vacuous.”

(based on Grosz 2010, Kratzer & Matthewson 2009)

What is the evidence for the definition in (782)? We have already seen that the conflict component can be observed in declaratives; it is evident that optatives always involve a conflict between what is the case (or what might be the case) and what is desired.

The burden of proof is thus on the familiarity component. What is the evidence for such a disjunctive statement of familiarity? The crucial evidence stems from a broader perspective on exclamations, like the one I have adopted. Looking at dass-exclamations, we observe that *doch* is good in counterfactual optatives, (783a), and in factive polar exclamatives, (783b); contrastively, *doch* is ill-formed in non-counterfactual non-factive optatives, (783c). This follows if *doch* requires the modified proposition to be non-contingent, i.e. to be established as either true or false (in the utterance context).

(783) a. Dass Hans *doch* nur rechtzeitig gekommen wäre!
    that Hans *doch* only in.time come were
    ‘If only Hans had come in time!’
b. Dass Hans **doch** glatt rechtzeitig gekommen ist!
that Hans **doch** outright in.time come is
‘[I’m surprised] that Hans came in time!’

c. Dass Hans (***doch***) nur rechtzeitig gekommen ist!
that Hans ***doch*** only in.time come is
‘If only Hans came in time!’

This observation is independent from the shape of the modified utterance. V1-variants also allow for **doch**. (We have already seen that non-counterfactual non-factive optatives do not allow for a V1-variant.)

(784) a. Wäre Hans **doch** nur rechtzeitig gekommen!
were Hans **doch** only in.time come
‘If only Hans had come in time!’

b. Ist Hans **doch** glatt rechtzeitig gekommen!
is Hans **doch** outright in.time come
‘[I’m surprised] that Hans came in time!’

c. * Ist Hans **doch** nur rechtzeitig gekommen!
is Hans **doch** only in.time come
‘If only Hans came in time!’

A unified approach also allows us to account for the attested distribution of **doch** in *if*-clauses. The particle **doch** is only possible in *if*-clauses that either presuppose that the modified proposition is true (or may be true), i.e. in so-called factual conditionals, (785b), or that the modified proposition is false, e.g. in optatives, (785c). It should be pointed out that this truth/falsity presupposition is a necessary condition for acceptability of **doch** in an *if*-clause, but not a sufficient condition. The particle **doch** is nevertheless impossible in canonical subjunctive/counterfactual hypothetical conditional *if*-clauses (cf. Coniglio 2009, who treats **doch** as a root clause phenomenon; see also Bayer 2001). For now, I conjecture that the impossibility of **doch** in such *if*-clauses derives from a failure of **doch** to access the speaker’s knowledge states in such a (structurally low) position\(^{130,131}\).

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\(^{130}\) As a consequence, **doch** must differ from \(\text{Mood}_{CF}\) in this respect, which is licensed in such *if*-clauses.

\(^{131}\) Alternatively, the presupposition of truth or falsity that I posit may derive from a more general presupposition that the truth value of the modified proposition is not under discussion (Kratzer &
I have shown that a weak Familiarity component, as well as a Conflict component, seem to be present in the semantics of unstressed doch both in optative and non-optative utterances. It thus appears desirable, both for empirical reasons and for reasons of parsimony, to assume a uniform entry for doch, which is compatible with both utterance types.

### 6.4.3 Anguish, Strength and Desirability: On the role of doch in Exclamations

What does doch contribute to an optative? In contrast to nur ‘only’ and wenigstens ‘at least’, doch does not eliminate a polar exclamative reading. Recall that (786) has both an optative reading and a polar exclamative reading.

(786) a. Hätte die dem tatsächlich das Buch gegeben!  
    had_{subj} she  him  indeed  the book  given  
    lit. Had_{subjunctive} she  only  indeed  given  him  the book!  
    ‘If only she had given him the book!’  
    opt.  
    ‘[It’s shocking that] she would have only given him the book!’  
    p.exc.
By contrast, *nur* ‘only’ and *wenigstens* ‘at least’ disambiguate towards an optative reading, as shown in (787) and (788).

(787) a. *Hätte die dem nur tatsächlich das Buch gegeben!*
    had_{subj} she him only indeed the book given
    lit. *Had_{subjunctive} she only indeed given him the book!*
    b. ‘If only she had given him the book!’
    opt.
    c. *‘[It’s shocking that] she would have only given him the book!’*
    p.exc.

(788) a. *Hätte die dem wenigstens tatsächlich das Buch gegeben!*
    had_{subj} she him at.least indeed the book given
    lit. *Had_{subjunctive} she at least indeed given him the book!*
    b. ‘If only she had at least given him the book!’
    opt.
    c. *‘[It’s shocking that] she would have at least given him the book!’*
    p.exc.

The particle *doch* cannot do so. In (789), the optative reading and the polar exclamative reading are still both available.

(789) a. *Hätte die dem doch tatsächlich das Buch gegeben!*
    had_{subj} she him doch indeed the book given
    lit. *Had_{subjunctive} she doch indeed given him the book!*
    b. ‘If only she had at least given him the book!’
    opt.
    c. *‘[It’s shocking that] she would have at least given him the book!’*
    p.exc.

In fact, we find that *doch* sometimes disambiguates towards a polar exclamative reading when the competing optative reading is non-counterfactual.

(790) a. *Dass Hans jetzt tatsächlich rechtzeitig gekommen ist!*
    that Hans now indeed in.time come is
    lit. ‘That Hans came in time now!’
    b. ‘If only Hans did indeed come in time now!’
    opt.
    c. *‘[It’s remarkable] that Hans did indeed come in time now!’*
    p.exc.
(791) a. Dass Hans jetzt **doch** tatsächlich rechtzeitig gekommen ist! that Hans now **doch** indeed in time come is
lit. ‘That Hans came in time now!’

   b.* ‘If only Hans did indeed come in time now!’  
      c. ‘[It’s remarkable] that Hans did indeed come in time now!’

This comes with some surprise, given that **doch** is prototypical and frequent in (counterfactual) optatives (cf. Scholz 1991). So what is the function of **doch** in optatives (and exclamations quite generally)? What we observe is the following contrast. While optatives and polar exclamatives are compatible with unstressed **doch**, degree exclamatives are incompatible with this particle.

(792) a. **Hätte** der **doch** tatsächlich getanzt! had_{subj} he **doch** indeed danced
   lit. **Had**_{subjunctive} he [**doch**] indeed danced!

   b. ‘If only he had indeed danced!’  
      c. ‘[It’s shocking that] he would have danced!’

(793) a. Mensch, **hätte** der (**doch**) (aber/vielleicht) (**doch**) getanzt!
   man had_{subj} he **doch** but/maybe **doch** danced
   lit. **Had**_{subjunctive} he [but/maybe] danced!

   b. ‘It’s amazing how he would have danced!’

Unfortunately, it is difficult to construct minimal pairs, as V1-polar exclamatives seem to require some element like **tatsächlich** ‘indeed’ or **glatt** ‘outrightly’ (cf. Scholz 1991), while V1-degree exclamatives disallow for such elements. The closest to a minimal pair that we can construct is given in (794). Here, (794a) with **aber** ‘but’ only has a degree exclamative reading, whereas (794b) with **doch** only has a polar exclamative reading.

(794)a. Hat der **aber** / **doch** wirklich nochmal Schwein gehabt!  
   has he but **doch** really again pig had
   ‘Boy, was he lucky again!’

(adapted from http://meinews.niuz.biz/d-t584936p2.html)
b. Hat der **doch** / **aber** wirklich nochmal Schwein gehabt!  
*polar excl.*

has he doch #but really again pig had

‘[I’m shocked that] he was lucky again!’

It is thus clear that unstressed *doch* is only ever compatible with a polar exclamative or optative reading and never with a degree exclamative reading.

I conjecture that the main function of *doch* in exclamations is to emphasize a polar contrast: In optatives, there is a clear-cut contrast between what is desired and the negation thereof, namely that which is the case. This is illustrated in (795) for an optative.

(795) **Hätte** der Otto **doch** nur getanzt!

has$_{subj}$ he Otto doch only danced

lit. Had$_{subjunctive}$ Otto [doch] indeed danced!

what is desired:  *Otto danced.*
what is the case:  ¬*Otto danced.*

On analogy, a polar exclamative expresses a polar opposition between what is the case and what was to be expected, as shown in (796).

(796) **Hat** der Otto **doch** glatt getanzt!

has he Otto doch outright danced

lit. Otto [doch] indeed danced!

what is the case:  *Otto danced.*
what would have been expected:  ¬*Otto danced.*

We can conjecture that degree exclamatives simply fail to mark a polar contrast, which is roughly illustrated in (797): The surprising contrast is not between $p$ and $¬p$, but between a degree that is surprisingly high and a set of degrees that would have been less surprising.

(797) **Hat** der Otto (#**doch**) (**aber** / **vielleicht**) getanzt!

has he Otto doch but maybe danced

lit. (Boy,) did Otto dance!

what is the case:  *Otto danced to a surprisingly high degree* $d$
what would have been expected:  *Otto danced to some less surprising degree* $d’$
In this sense, the function of *doch* is to emphasize a polar contrast, and specifically, in optatives, it is to emphasize the contrast between what is the case and what is desirable. This is consistent with the assumption that *doch* requires its complement proposition to be either false or true: It may be pragmatically suboptimal to emphasize conflict between something that may or may not be the case and its polar opposite.

### 6.4.4 Interim Summary

The goal of this section was to complete our overview on the prototypical particles that we find in optatives by investigating German *doch* (the analysis for which should also carry over to Dutch *toch*). I proposed that a uniform analysis is possible and desirable for unstressed *doch* in declaratives as well as in optatives. The core components of *doch* are the marking of its complement proposition as non-contingent (i.e. true or false) and the presupposition that this proposition is in conflict with some salient alternative (often its polar opposite).

### 6.5 Elementary Particles – On Cues and Pragmatic Resolution

Concluding our section on optative particles, I would like to sketch a generalized analysis of the function of particles in speech act resolution. Specifically, what we find is that there are different particles associated with different types of utterances. The focus so far was on *doch*, *nur* ‘only’ and *wenigstens* ‘at least’ and their cross-linguistic counterparts. What we observed was that these particles both license optatives and disambiguate between different speech acts. Their optativity-licensing property is illustrated in (798). As indicated, (798) is deviant in the absence of any prototypical particle.

(798) Wäre ich #(doch / nur / wenigstens) reich!
were I doch only at.least rich
‘If only I were rich!’
Looking at other constructions in a particle-rich language like German, we find other particles that have similar functions. In V1-degree exclamatives, we find *aber* ‘but’ and *vielleicht* ‘maybe’, which help license the exclamative reading, (799a). In adversative constructions, which express a negative evaluation, we find *schon* ‘already’ and *auch* ‘also’, which also contribute to the well-formedness of these constructions, (799b+c).

(799)a. Mensch, bist du *aber* / *vielleicht* blöd! 
man are you but maybe stupid
‘Boy, are you ever stupid!’

b. Mein Gott, wenn ich das *schon* höre! 
my God when I that already hear
‘[I get angry] when/if I hear this!’

c. Mensch, wenn du *auch* so unfreundlich bist! 
man if you also so unfriendly are
‘[It is bad] that/if you’re so unfriendly!’

We have already seen how such particles may help disambiguate between different readings for one and the same utterance. So, how do such particles help license different speech acts?

As I have argued in detail for *doch*, *nur* ‘only’ and *wenigstens* ‘at least’, such particles are typically truth-conditionally vacuous. They convey semantic content at a non-truth-conditional level. I propose that their speech act licensing function comes about as follows. First, the particles must be compatible with a particular utterance type, and make a felicitous contribution. As we have seen, *nur* ‘only’ in optatives marks that the desired proposition is low on the speaker’s preference scale, and thus makes the contribution of marking modesty and desperation, i.e. the speaker conveys that ‘this is really not much to ask for’. Similarly, *wenigstens* ‘at least’ in optatives reinforces the bouletic orientation of the utterance and conveys that the speaker is settling for less, i.e. the speaker conveys that she is willing to compromise. Finally, *doch* in optatives reinforces the polar orientation of the utterance (i.e. the contrast between what is desired

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133 It is easy to see how this extends at least to *schon* ‘already’ in (799b) and to *auch* ‘also’ in (799c).
and what is the case); by using *doch*, the speaker emphasizes the conflict between wish and reality. Each of these particles thus makes a contribution to an optative, which may be characterized in terms of reinforcement and strengthening. By using these particles, the optative becomes more expressive.

Second, the particles in question will typically act as disambiguators. Not all utterance types are equally compatible with all types of particles. This gives rise to a situation where accumulating particles is a means of cumulatively disambiguating. Let me illustrate. Example (800) is multiply ambiguous, allowing for four conceivable readings. (For the sake of argumentation, I assume that all four readings are equally well-formed, which is naturally not the case – a fact that derives from the present discussion.)

(800) a. Hätte es geregnet…
    had it rained
    *lit. ‘Had it rained…’*
    
    b. *conditional antecedent reading:* Had it rained, I would have stayed home.
    c. *optative reading:* I wish it had rained.
    d. *polar exclamative reading:* I’m surprised that it would have rained.
    e. *degree exclamative reading:* Boy, would it have rained.

The particle *doch* is only possible in clauses that directly access the speaker’s doxastic state (via Dox_{speaker}(w)). While this is possible in a factual conditional antecedent, it is not possible in a hypothetical conditional antecedent (cf. Coniglio 2009). Crucially, conditionals with conditional inversion do not seem to allow for a factual reading (cf. Reis & Wöllstein 2010); therefore, placing *doch* into the clause in (800) eliminates the reading as a conditional antecedent. Similarly, we have seen that *doch* is not compatible with a degree exclamative reading. By adding *doch*, we thus reduce the possible readings to polar exclamative and optative, as shown in (801).

(801) a. Hätte es doch geregnet…
    had it doch rained
    *lit. ‘Had it rained…’*
b.* conditional antecedent reading: Had it rained, I would have stayed home.
c. optative reading: I wish it had rained.
d. polar exclamative reading: I’m surprised that it would have rained.
e.* degree exclamative eading: Boy, would it have rained.

If we now add nur ‘only’, the only remaining reading is an optative reading, as we have seen that polar exclamative readings are incompatible with ONLY₂.

(802) a. Hätte es doch nur geregnet…
had it doch only rained
lit. ‘Had it rained…’
b.* conditional antecedent reading: Had it rained, I would have stayed home.
c. optative reading: I wish it had rained.
d.* polar exclamative reading: I’m surprised that it would have rained.
e.* degree exclamative eading: Boy, would it have rained.

We can thus show transparently how accumulation of particles is a means to disambiguate potentially ambiguous utterances. But how could particles ever become obligatory (or quasi-obligatory)? I argue that this is a conspiracy, which can be captured as follows.

Given that particles are a reliable means to disambiguate and single out a particular desired reading, we find ourselves in a situation that can be described as follows (first discussed in Grosz 2011). If we make standard assumptions on rational discourse participants (cf. Lewis’s 1969 signaling games), particles can be viewed as speech act cues (or, more neutrally: cues for different utterance types). In many situations, a speaker has to decide whether to use cues (e.g. for optativity) and the hearer has to decide how to interpret an utterance that lacks such cues (and is thus underspecified for different possible readings). In any such situation, the most successful strategies on part of the speaker and hearer are those where the speaker always uses one or more of the appropriate cues and the hearer always interprets cue-less utterances as the most
unmarked ones. In the case of (803), different cues can give rise to different (marked) readings, shown in (804). However, there is no designated cue for a conditional reading.

(803) a. Wäre ich reich…
      were I rich
      lit. ‘Were I rich…’

    b. conditional antecedent reading: Were I rich, I would travel the world.

    c. optative reading: I wish I were rich.

    d. polar exclamative reading: I’m surprised that I would be rich.

    e. degree exclamative eading: Boy, would I be rich.

(804) a. Wäre ich doch tatSÄCHlich reich!
      were I doch indeed rich
      ‘[I’m surprised] that I would indeed be rich.’

    b. Wäre ICH vielleicht reich!
      were I maybe rich
      ‘Boy, would I be rich!’

    c. Wäre ich doch nur REICH!
      were I doch only rich
      ‘If only I were rich!’

It thus follows that the most successful strategy for a speaker will be to use these cues whenever applicable, as the hearer will revert to the unmarked (conditional) reading in the absence of any cue. This accounts for the perceived deviance of (805): The hearer will always understand this to be a fragmentary conditional and thus interpret it as an incomplete utterance.

(805) #Wäre ich reich!
      were I rich
      lit. ‘Were I rich…’
This informal analysis can be formalized in terms of a signaling game (Lewis 1969:130-133), sketched as follows. Assume that speech act cues are costly and thus only used when this increases the expected utility for the speaker and/or the hearer. If we assume that utterances like (803) and (805) are truly ambiguous between at least two readings (one of which may be the unmarked one), the following consequence arises. If the context biases a reading strongly enough to practically eliminate the alternative reading (which we could implement in terms of prior probabilities), then no cues are necessary and, due to their costliness, cues are in fact dispreferred. This accounts for the marginal possibility of cue-less optatives. However, whenever there is no such powerful bias in favor of one reading or the other, it will always be preferable on part of the speaker to use speech act cues in order to maximize successful disambiguation and thus maximize successful communication. In other words, the prototypicality of prototypical optative particles is a consequence of a conspiracy, which stems from the disambiguating effect of these particles in conjunction with strategies to maximize successful communication.

Similar considerations apply to other areas where particles are used. For instance, imperatives (which typically have a command reading and a permission reading) can be disambiguated towards a permission reading in German by means of the particle *ruhig*.

(806) a. Komm *herein!* 
   *come  in* 
   ‘[I order you to] come in! / [I allow you to] come in!’

   b. Komm *ruhig  herein!* 
   *come  ruhig  in* 
   ‘[I allow you to] come in! / *[I order you to] come in!’

It is a direct prediction of the present proposal (and, may I say, quite intuitive) that *ruhig* is used more often when the context does not independently disambiguate between a command intention and a permission intention on part of the speaker. Unfortunately, it is beyond the scope of the present project to explore whether this prediction carries out.

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134 I assume that both speaker and hearer aim at maximizing successful communication and at the same time aim at minimizing effort in production and in parsing.
7. Summary and Conclusion

In this dissertation, I proposed an analysis for so-called optative constructions that aimed at answering three separate questions. First, how does desirability arise in optatives? Second, how is mood information encoded and what is its role in determining the form of optative utterances? Third, what is the role of prototypical optative particles?

I answered the first question by positing a generalized exclamation operator, which not only accounts for optatives, but also for so-called polar exclamatives. The idea that I presented is that the exclamation operator forms a direct link between grammatical expressions and emotional/affective behavior; by virtue of this exclamation operator, the speaker directly expresses an emotion rather than describing it.

I proposed an answer for the second question that assumes that semantic mood (such as counterfactuality and factivity) is encoded in a Mood head, the content of which co-determines both morphological mood marking on the finite verb and the overt material that we find in C. Such a view allows us to account for different types of exclamations in a uniform way, irrespective of their different semantic mood and different syntactic form.

For the third question, I outlined a system that assumes that different prototypical particles are truth-functionally vacuous presupposition triggers that have three different functions. First, by virtue of their core lexical semantics, they modulate the meaning that the speaker conveys when uttering a sentence; in the case of exclamations, their main function is to further specify the emotion that is conveyed, e.g. by adding a notion of desperation or willingness to compromise. Secondly, particles serve to disambiguate clauses that are multiply ambiguous, e.g. ruling out a polar exclamative reading in favor of an optative reading. Thirdly, by virtue of their disambiguating effect, particles end up functioning as a reliable strategy for marking and thus licensing a particular intended speech act. The proposal that I presented extends beyond optatives and provides us with a new generalized view for dealing with particles that co-determine a speech act in a language like German.
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