

Restrictions on experiencer placement in German *tough*-movement: Constituency and prosody rather than intervention

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Abstract

In this paper, we will compare the syntax of English *tough*-movement with that of its translational equivalent in German. We will see that, on the one hand, the syntax of the German construction is very different: there is no A'-movement involved but rather A-movement and restructuring; additionally, the adjective is merged as an adjunct to the infinitival clause rather than being the head that selects it; on the other hand, we will see that one can observe similar restrictions on the placement of experiencers. We will argue that this suggests that many of the proposals that have been made to account for experiencer intervention in English cannot be applied to German. Instead, we will argue that the restrictions follow from independent properties of German such as (i) the constituency that obtains if German *tough*-movement essentially receives the same analysis as the modal passive and (ii) a general adjacency requirement on verb clusters.

1. Background: *Tough*-movement in English

The *tough*-movement (TM) construction in English has received a lot of attention. The main reason for this is that it seems to involve movement from the embedded object position across a CP-boundary to the matrix subject position (which would be in conflict with various principles of grammar such as locality and the Activity Condition). Thus, next to the expletive version in (1a) where *Cholesterol* occurs as the embedded object, there is a version where what looks like the object of *avoid*, i.e., *Cholesterol* occurs as the matrix subject, (1b); this variant is referred to as *tough*-movement because *tough* is one of the prototypical adjectives occurring in this construction, cf. *This book is tough to read* (for the class of verbs occurring in English TM, see Gluckman 2021). For ease of representation, we indicate the position in the embedded clause which the matrix subject is related to by means of a gap, without intending to imply a particular analysis.

- (1) a. It is important to avoid cholesterol. expletive version
b. Cholesterol is important to avoid ____ TM

Perhaps the most challenging aspect of the construction are the mixed properties of the surface subject (often referred to as *tough*-subject): On the one hand, it has A-properties in that it triggers agreement on the matrix predicate. On the other hand, it is related to a position in the embedded clause, and that relationship bears some hallmarks of A'-movement: The construction is neither clause-bound nor blocked by intervening DPs in A-positions, (2a), but the gap cannot be inside an island, (2b), the infinitival clause itself acts as an island for extraction of other constituents from it, (3), and *tough*-movement licenses parasitic gaps, (4) This strongly suggests that A'-movement is involved in one way or the other (see also Řezáč 2006:307ff.).¹

- (2) a. A guy like John is hard to imagine any woman believing she could marry ____.
b. ??A guy like John is hard to imagine any woman wondering why she would agree to marry ____.
(Hicks 2009:542)

¹Two short notes on some of the empirical aspects are in order: First, while not clause-bounded, *tough*-movement is more restricted than other types of A'-movement in that the crossing of finite clause-boundaries usually leads to degradation; the exact restrictions are difficult to pin down given that there seems to be some variability in the judgments, as suggested by the discussion in, e.g., Řezáč (2006:307ff.), Hicks (2017:9), Gluckman (2021:457), Gluckman (2022:5). Secondly, the complement CP in *tough*-movement is usually claimed to have the profile of a weak island (see Řezáč 2006), just like *wh*-islands, but the literature also contains many examples like (3a) below suggesting that argument extraction from the complement CP is also quite restricted.

- (3) a. *[What sonatas]₁ is this violin easy to play ___ on ___₁? (Chomsky 1977:105)
 b. *[How intelligent]₁ is John easy to regard ___ as ___₁? (Řezáč 2006:292)
- (4) ?Lloyd Webber musicals are easy [to condemn ___ [without even watching ___]]. (Hicks 2009:542)

The phenomenon has received different accounts, see Hicks (2017) for an overview. The main division is between approaches that assume movement from the embedded clause into the main clause (e.g., Hicks 2009, Hartman 2011, Longenbaugh 2017) and those where the *tough*-subject is base-generated in the main clause, while the movement effects in the embedded clause are the result of empty operator movement (e.g., Chomsky 1982, Browning 1987, Heycock 1994, Řezáč 2006, Keine and Poole 2017, Gluckman 2021; 2022).

Another important topic in recent years has been the fact that the presence of experiencers is unproblematic in the expletive construction but makes TM impossible (when the experiencer occurs between adjective and infinitival clause), see Hartman (2011):

- (5) a. It is important (to Mary) to avoid cholesterol.
 b. Cholesterol₁ is important (*to Mary) to avoid ___₁.

While taken as evidence for A-movement from the embedded clause in Hartman (2011), Keine and Poole (2017) relate it to a type-mismatch (the adjective that takes the predicative complement cannot combine with the functional head introducing the experiencer). In yet another type of approach, Bruening (2014) and Salzmann (2023) reduce it to independent constraints on word order. The fact that the intervention effect also obtains with adjuncts (a fact that also holds for Romance languages) has been considered a strong argument against A-movement approaches, given that adjuncts should not interfere with A-movement, see Bruening (2014:710):

- (6) a. It is always annoying (at meetings) to talk about the budget.
 b. The budget₁ is always annoying (*at meetings) to talk about ___₁.

This is a welcome result given that A-movement (raising) does not otherwise display intervention effects in English:

- (7) John₁ seems to Mary ___₁ to be happy.

Against this background, we will investigate the placement properties of experiencers in the German translational equivalent of *tough*-movement and explore the theoretical consequences of these restrictions. In section 2 we will show that, although the underlying syntax of the German construction is quite different, the restrictions regarding experiencer placement are surprisingly similar to those in English. In section 3 we will show that there are good reasons to believe that German TM is based on the modal passive and like the long passive involves a restructuring configuration with A-movement of the subject. I then show that the restrictions on experiencer placement follow from independent properties of German such as (i) the constituency that obtains under the modal passive analysis and (ii) a general adjacency requirement on verb clusters.

2. *Tough*-movement in German

In this section, we highlight similarities and differences between English *tough*-movement and its German translational equivalent, focusing on evidence for A'-movement and placement possibilities of experiencers.

2.1. *Basic facts: Restructuring rather than A'-movement*

As in English *tough*-movement, its German translational equivalent comes in both an expletive and a TM-variant (see, e.g., Holl 2010:37):^{2,3}

- (8) a. dass es schwer ist, [den Vorschlag zu verstehen]
that it difficult is the.ACC proposal to understand.INF
 ‘that it is difficult to understand the proposal’ expletive variant
- b. dass der Vorschlag schwer [zu verstehen] ist
that the.NOM proposal difficult to understand.INF is
 ‘that the proposal is difficult to understand’ TM

The expletive variant is a non-restructuring construction, meaning that the infinitival clause is large, i.e., a CP, and hence preferably occurs in extraposed position. Evidence for CP-status comes from the fact that scrambling into the matrix clause leads to ungrammaticality. Given that scrambling is clause-bound in German (it is blocked by CPs), we must be dealing with a non-restructuring/large infinitive.

- (9) *dass es [den Vorschlag]₁ schwer ist [₁ zu verstehen]
that it the.ACC proposal difficult is to understand.INF

The TM-variant is a restructuring construction, i.e., the infinitival clause is smaller than CP and hence permeable for scrambling (see, e.g., Schwarzer 2019:180, ex. 26). The direct object of the embedded clause obligatorily has to occur in the matrix clause and, in addition, undergoes case-conversion from accusative to nominative and hence triggers subject-verb agreement on the main clause copula (Wurmbrand 2001). (10) shows that accusative case on the displaced constituent leads to ungrammaticality:⁴

- (10) *dass [**den** Vorschlag]₁ schwer [₁ zu verstehen] ist
that the.ACC proposal difficult to understand.INF is

Unlike in English, the TM-variant is not unbounded, suggesting that it does not involve A'-movement (cf. Wurmbrand 2001:29):

- (11) *dass [der Vorschlag]₁ schwer [Leute zu überzeugen [₁ zu lesen]] ist
that the.NOM proposal difficult people to persuade.INF to read.INF is
 ‘that the proposal is difficult to convince people to read’

Again unlike in English, extraction from the infinitival clause is unproblematic, for both arguments, (12a) and adjuncts, (12b), while extraction from weak islands is otherwise degraded in German, (12c). This suggests that no A'-dependency is present within the infinitival clause of German TM that could impede extraction of other constituents:⁵

²German examples without reference were constructed and judged by the author.

³The class of adjectives occurring in the construction seems to be very similar to that in English. According to Gluckman (2021) this class is largely semantically determined. Note that the TM variant is also possible with adjectives that (i) lack an expletive version (e.g., *hübsch* ‘pretty’) or (ii) where the expletive version has a different meaning (e.g., *gut* ‘good’), see Holl (2010:37) and the discussion of the *pretty*-class in the appendix.

⁴Schwarzer (2019:182, ex. 31) argues that *tough*-infinitives in German also display some properties of CPs, specifically that weak pronouns can remain inside the infinitival clause, as with (certain) control infinitives and unlike with obligatory restructuring predicates like raising verbs. As far as I can tell, the data are rather subtle, though; as Schwarzer indicates herself, fronting of the weak pronoun is clearly preferred.

⁵Schwarzer (2019:177, ex. 19) argues in favor of the presence of A'-movement inside the complement clause based on examples like (i), which suggest that German *tough*-movement licenses Parasitic Gaps, a hallmark of A'-movement:

- (i) dass der Text einfach [ohne ₁ gründlich durchzulesen] ₁ zu verstehen ist
that the text easy without carefully read.through.INF to understand.INF is
 ‘that the text is easy to understand without reading thoroughly’

The evaluation of such data is non-trivial. Apart from the fact that such examples are certainly marked, it is not clear to what extent Parasitic Gaps in German can be compared to Parasitic Gaps in languages like English and hence be used to provide an argument for A'-movement. As, e.g., discussed in Haider (2017:57–60), there are significant asymmetries which have led some to postulate completely different (conjunction reduction-based) analyses for German Parasitic Gaps. Since the debate is still unsettled, the force of arguments based on PG-licensing is limited. Still, as Schwarzer points out, it is remarkable that examples like (i) seem more acceptable than passive sentences proper, where PG-licensing is clearly impossible.

- (12) a. [Davon]₂ ist Hans₁ nur schwer [—₁ —₂ zu überzeugen] (gewesen).
there.of is John only difficult to convince.INF been
 ‘It was difficult to convince John of it.’
- b. [Als Idioten]₂ sind Politiker₁ leicht [zu —₁ —₂ beschimpfen].
as idiots are politicians easy to insult.INF
 ‘It is easy to insult politicians as idiots.’
- c. ??Davon₁ frag ich mich, [wie man den Peter —₁ überzeugen könnte].
there.of ask I myself how one the.ACC Peter convince.INF could
 lit.: ‘Of this, I ask myself how one could convince Peter.’

These facts suggest that the German construction involves a substantially different syntax: It is monoclausal with the surface subject entertaining an A-movement-like relationship with the object position in the embedded clause.

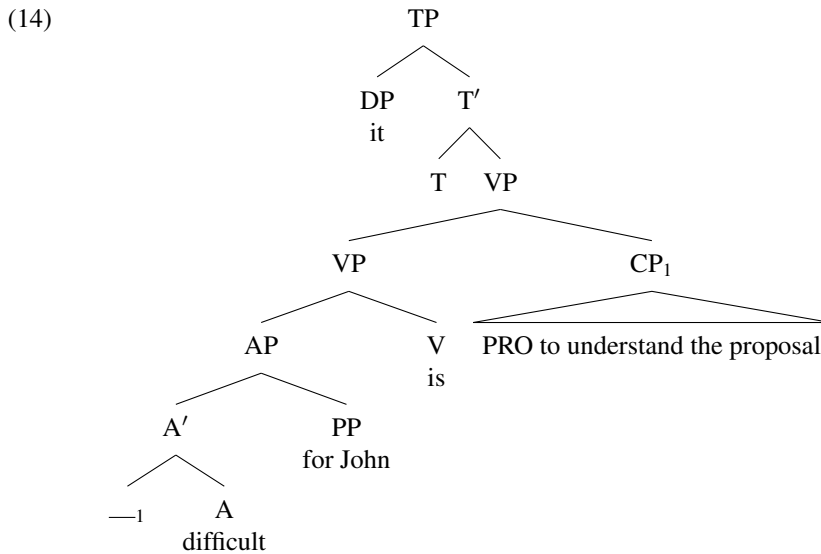
2.2. *Placement of the experiencer*

Interestingly, German TM shows certain similarities to English TM regarding restrictions on the placement of the experiencer PP.

In the expletive construction, as in English, the PP can occur in basically every position:

- (13) dass es {für Hans_A} schwer {für H._B} ist {für H._C}, [den Vorschlag zu verstehen] {??für H._D}
that it for John difficult for J. is for J. the.ACC proposal to understand.INF for J.
 ‘that it is difficult for John to understand the proposal’

This pattern can be accounted for if one assumes that the CP starts out as a complement of the adjective with the experiencer projected higher, e.g., as a specifier of the adjective (given that the experiencer controls PRO inside the infinitival clause). The CP then undergoes extraposition, i.e., right-adjunction to some projection of VP/vP (which we take to be derivational, pace Bennis 1987). This leads to option (B) in (13) (we use English words for ease of representation):



The other orders in (13) arise via (A) PP-scrambling to the left (into a specifier of VP), (C) extraposition of the PP to the lower VP-segment; (D) the degradedness to extrapose the PP above/to the right of CP may be due to a heaviness effect (as this option becomes more acceptable once the PP is heavier/longer).⁶

Things are different in the TM-variant. According to my judgment the PP can only occur to the left of the adjective or in extraposed position:⁷

- (15) dass der Vorschlag {für Hans} schwer {*für H.} zu verstehen {*für H.} ist {für H.}
that the.NOM proposal for John difficult for J. to understand.INF for J. is for J.
 ‘that the proposal is difficult to understand for John’

As in English, adjuncts also lead to degradation according to my judgment (note that, crucially, the PP is intended to modify the matrix VP):

- (16) dass das Thema {bei Meetings} schwer {*bei Meetings} zu besprechen {*bei Meetings} ist {bei Meetings}
that the topic at meetings difficult at meetings to discuss.INF at meetings is at meetings
 ‘that the topic is difficult to discuss at meetings’

Thus, while there are good reasons to believe that the syntax of the German construction is rather different from its English equivalent, the restrictions on the placement of the experiencer suggest some similarity after all.

In the next section, we will investigate the syntax of the German TM-variant and conclude (in line with some of the previous literature) that it represents a version of the modal passive.

3. The syntax of German *tough*-movement

In this section, we will first show that the adjective has a different status in the German TM-construction, making an assimilation to the modal passive possible. Then, we will provide an explicit syntax for the construction and discuss the consequences for the placement of experiencers.

3.1. Similarities with the modal passive: The adjective is an adjunct

The starting point is the observation that essentially the same (modal) interpretation obtains without the adjective in a construction referred to as the *modal passive*, see, e.g., Höhle (1978), van Riemsdijk (1982), Demske-Neumann (1994), Holl (2010):

- (17) dass der Vorschlag zu lesen ist
that the proposal to read.INF is
 ‘that the proposal can/must be read’

Such sentences have two interpretations: one expressing disposition/ability, one expressing necessity. One can then optionally add a PP, namely *von*/'by'-PP under both readings, and *für*/'for'-PP in the dispositional reading (see Holl 2010:36):

⁶In Salzmann (2023) I argue that the infinitival clause is actually an external argument projected in the specifier of the adjective. This makes the same predictions regarding experiencer placement as long as the infinitival clause is extraposed.

⁷A few empirical notes: many speakers find the PP between the A and the InfP somewhat acceptable; I suspect it is an illusion because the string is locally acceptable, viz., corresponds to the predicative use of the adjective. When searching the internet, one can find a few examples via google, but their status is unclear, many are translations (with ‘this is difficult for me to ...’ one gets roughly 60 hits, while with ‘this is for me difficult to ...’ one gets 160 hits). I think that the contrast becomes clearer once the adjective is modified by *nur* ‘only’, which cancels the predicative interpretation (and forces the adverbial interpretation, see below).

- (18) dass der Vorschlag von Hans/für Hans zu lesen ist
that the proposal by John/for John to read.INF is
 ‘that the proposal must be read by/can be read by John’

The TM-variant can then be understood as arising from the (dispositional) modal passive by adjoining an adverbial adjective to the dependent VP: [_{VP} AP [_{VP} V]]. Further evidence for this perspective comes from the fact that (i) German TM is possible with adjectives that can be used adverbially but not predicatively such as, e.g., *augenscheinlich* ‘evidently’ (Demske-Neumann 1994:182f.) and that (ii) instead of an adverbial adjective, adverbs proper like *kaum* ‘hardly’ or sentential negation *nicht* can occur in their place:⁸

- (19) Der Vorschlag ist kaum/nicht zu lesen.
the proposal is hardly/not to read.INF
 ‘The proposal is hard/impossible to read.’

Evidence that the adjective is not the head of the construction comes from the attributive version of the construction, which is grammatical, (20a). Given that the adjective here occurs in uninflected form (unlike normal attributive adjectives) and prenominal adjectives cannot take right-hand complements, (20b), the adjective in the modal passive/TM cannot be the head, see van Riemsdijk (1982:73f.), Holl (2010:181) (but see Schwarzer 2019:202f. for arguments that this may be inconclusive).⁹

- (20) a. ein für Hans schwer(*-e) zu verstehen-der Vorschlag
a for John difficult-WK to understand.INF-PTCP proposal
 ‘a hard proposal to understand for John’
 b. *der stolz-e auf seinen Sohn Vater
the proud-WK on his son man
 ‘the father who is proud of his son’

The main difference is that the modal passive has no expletive version.

As for the modal component in the modal passive/the TM-version, Holl (2010) argues that it should be identified with *zu* (or *te* in Dutch), which thus should not be analyzed as an infinitival marker.¹⁰ Evidence for this comes from the observation that the modal reading also obtains in the attributive construction (and thus without *sein* ‘be’, which is an argument against Demske-Neumann 1994 and Wurmbrand 2001):

- (21) ein zu verstehen-der Vorschlag
a to understand.INF-PTCP proposal
 ‘a proposal that can be/must be understood’

The placement of *zu* would work the same as with the infinitival marker: it is initially a free-stranding element that is attached to the verb at PF (via Lowering or Local Dislocation, see Salzmann 2019a). Alternatively *zu* could be taken to be the spell-out of a functional/passive head that absorbs the external argument and fails to assign accusative case; at any rate, there will be two functional heads, a modality-related head and a voice head, with only one of them receiving phonetic realization.¹¹

⁸As far as I can tell, basically any adverbial can occur in the construction as long as it is compatible with the modal meaning (deontic/dispositional). For instance, *durchaus* ‘absolutely’, *sicherlich* ‘surely’ (and arguably more) are also possible (with both modal interpretations). It is also the semantics that constrains the range of adverbial adjectives that occur in the TM-version. This proposal is developed explicitly in Gluckman (2021:463–468) regarding English TM.

⁹As elsewhere, the adjective is optional in prenominal position (and in principle compatible with both modal interpretations; in (i) it is dispositional):

- (i) eine nachzuvollziehen-de Begründung
a to.understand.INF.PTCP justification
 ‘a justification that can be understood’

¹⁰Cf. also Gluckman (2021), who links the modal component in English TM to the complementizer.

¹¹See Schwarzer (2019:173ff.) for certain challenges for the passive analysis, specifically that TM/the modal passive is possible with verbs that cannot be passivized. Note, though, that it is conceivable that whatever voice head is involved in the modal passive/German

The adjective does not always adjoin to the infinitival clause in the modal passive; sometimes, it takes scope below the modal component. It thus has to attach at a lower point inside the infinitival clause (see Holl 2010:45; cf. **it is quick to read the proposal*, showing that this is not an instance of TM):

- (22) weil der Vorschlag [**schnell** zu lesen] ist
because the proposal quickly to read.INF is
 ‘because the proposal can be/must be read quickly’

The following data provide new, additional evidence that the adjective cannot be the head taking the infinitive as its complement: the adjective can be moved by itself without the infinitive undergoing extraposition (note that it precedes the right sentence bracket in (23), i.e., the verbs in V-final position *gewesen/ist*). This entails that AP-fronting does not involve remnant AP-movement; see Salzmann (2023) for the same argument based on English TM (the data in (23) are, in principle, also compatible with the proposal in Gluckman 2022 that the infinitival clause is an adjunct of the adjective):

- (23) a. Schwer₂ ist der Vorschlag₁ nicht [—₂ —₁ zu verstehen] gewesen.
difficult is the proposal not to understand.INF been
 ‘The proposal was not difficult to understand.’
 b. [Wie schwer]₂ eine Skipiste₁ [für den Wintersportler —₂ —₁ zu bewältigen] ist
how difficult a slope for the winter.sportsman to manage.INF is
 ‘how difficult a slope is to manage for a winter sportsman’¹²

It is sometimes claimed that the entire construction has the distribution of an AP (and the adjective is thus the head taking the infinitive as its complement), based on small clause data as in (24), where the modal infinitive is only grammatical in the presence of an adjective, see Demske-Neumann (1994:150):

- (24) weil er [den Vorschlag *(schwer) zu verstehen] findet
because he the proposal difficult to understand.INF finds
 ‘because he finds the proposal hard to understand’

However, (24) becomes acceptable once an adverb like *kaum* ‘hardly’ or *nicht* ‘not’ is added, suggesting that (24) does not provide any evidence for the adjective’s being the head (see also Bennis 1990:34ff. for Dutch). In addition, one can easily find examples involving *zu beachten finden* ‘find worth considering’ without any modification. Finally, Demske-Neumann (1994:198) provides data supposedly showing that one cannot coordinate bona fide adjectives with a modal passive, while coordination of AP+TM (= AP + *zu-InfP*) is impeccable. However, apart from the fact that Demske’s judgments are not shared by other speakers (cf. also Holl 2010:170), the possibility/impossibility to coordinate two XPs has to be interpreted with care given that it is well-known that one can coordinate predicates of different categories (cf. *John is stupid and a liar.*)

In summary, the data suggest that the adjective is not the head of the construction, taking the infinitival clause as its complement (pace Wurmbrand 2001:28 and Schwarzer 2019). The facts are also not compatible with the proposal in Gluckman (2022:259) for English TM, according to which the adjective is the main predicate, while the infinitival clause is adjoined (to a projection of the adjective). Rather, the facts are most compatible with the assumption that the adjective is adverbial in nature and adjoined to the infinitival clause.

TM is semantically different from the regular passive voice head and hence imposes different restrictions. For a proposal along these lines for Romance, see Russo Cardona (2026).

¹²<http://skifahren-im-harz.de/forum/index.php?topic=240.45>, accessed February 3, 2018.

3.2. *Properties of TM/the modal passive shared with the long passive*

In this subsection, will will show that there are striking parallels between TM/the modal passive and the so-called long passive construction (see Wurmbrand 2001) suggesting that they have essentially the same syntax. First, starting with the expletive version of the "long-passive". It is also a non-restructuring construction with the object bearing accusative case, see (25a); the non-expletive version, on the other hand, is a restructuring construction showing case-conversion from ACC to NOM, (25b) (I am using the 3rd Construction to ensure that the DP has actually left the infinitival clause):

- (25) a. *dass versucht wurde, [den Wagen zu reparieren]*
that tried became.3SG the.ACC car to repair.INF
 'that it was attempted to repair the car'
- b. *dass der/*den Wagen versucht wurde [__ zu reparieren]*
that the.NOM/the.ACC car tried became.3SG to repair.INF

Like the modal passive/TM in (11), the long passive is also not unbounded:

- (26) **dass der Wagen niemanden zu überzeugen zu reparieren versucht wurde*
that the.NOM car no.one.ACC to convince.INF to repair.INF tried became.3SG
 'that it was attempted to convince nobody to repair the car'

In both constructions, the object of 'convince' acts as an intervener for A-movement of the embedded object.¹³

Possible evidence for (A-)movement in both constructions could also come from reconstruction effects. (27) is an attempt based on variable binding. It is somewhat difficult to construct examples: On the one hand, one needs to make sure that the binder is inside the infinitival clause. On the other hand these restructuring infinitives are small, with non-verbal constituents preferably scrambling out (the TM-version is more acceptable with an adverb than an adverbial adjective).

- (27) ?*weil Nacktbilder von sich_i kaum [[einem Politiker]_i zu verkaufen] sind*
because nude.pictures of self hardly a.DAT politician to sell.INF are
 'because it is difficult to sell a politician_i nude pictures of himself_i'
- (28) ??*weil Nacktbilder von sich_i häufig versucht werden, [einem Politiker]_i zu verkaufen*
because nude.pictures of self frequently tried are a.DAT politician to sell.INF
 'because it is frequently attempted to sell a politician_i nude pictures of himself_i'

As far as I can tell, the modal passive example is more acceptable, for reasons that are not fully clear to me.

Wurmbrand (2004) shows that lexical restructuring constructions do not allow for scope reconstruction with universally quantified DPs, (29a). The same holds true of German TM, (29b):

- (29) a. *dass alle Fenster zu schließen vergessen wurden*
that all windows to close.INF forgotten became.3PL
 'that it was forgotten to close all the windows' ∀ > forget; *forget > ∀; LP
- b. *dass kein Mensagericht leicht zu essen ist*
that no mensa.dish easy to eat.INF is
 'that no mensa dish is easy to eat' no > easy; *easy > no; TM

¹³The biclausal/CP-complement analysis of German TM in Schwarzer (2019) is set up in such a way that A'-movement is clause-bound and hence also accounts for the clause-boundedness of German TM. However, on her account it seems accidental that the long passive is subject to the same restriction – unless it can also be analyzed as involving A'-movement – but as far as I can tell, there is no evidence for that.

The situation with scope is more complex, however, in that, according to Holl (2010:54f., 60, 100, 182), scope reconstruction *is* possible under both the deontic and the dispositional reading as long as different quantifiers are used. (30) illustrates this for the deontic reading:

- (30) dass zwei von (diesen) drei Artikeln (sorgfältig) zu lesen sind
that two of these three articles carefully to read.INF are
 ‘that two out of (these) three articles must be read (carefully)’ 2 > must; must > 2

Scope reconstruction under the dispositional interpretation seems initially less acceptable; for instance, I find scope reconstruction difficult to obtain in all the examples provided in Holl (2010), especially in his ex. 24 on p. 182 where an interpretation like ‘it is easy to solve two out of three exercises’ seems difficult to obtain.¹⁴

- (31) Zwei von diesen drei Aufgaben sind leicht zu lösen.
two of these three exercises are easy to solve.INF
 ‘Two of these three exercises are easy to solve.’

However, one of the reviewers finds reconstruction unproblematic in such examples. In addition, Schwarzer (2019:183, ex. 32b) provides the following example:

- (32) dass fünf Leute schwierig gleichzeitig zufriedenzustellen sind
that five people hard simultaneously to.please.INF are
 ‘that five people are hard to please simultaneously’

I find the example significantly better if *schwierig* is replaced with the adverbial *kaum* ‘hardly’, but then, the narrow scope reading is indeed possible and can be paraphrased with ‘it is hardly possible to please five people at the same time’. On the other hand, other examples modeled after those in Bobaljik and Wurmbrand (2005:811) do not seem to allow for scope reconstruction:

- (33) weil nur deutsche Autos leicht zu verkaufen sind
because only German cars easy to sell.INF are
 ‘because only German cars are easy to sell’

This sentence cannot be interpreted such that it is easy to only sell German cars. I thus conclude that, while the empirical picture is more complicated in that scope reconstruction is not blocked throughout, the behavior of German TM seems quite parallel to that of the long passive (although I am not sure if scope reconstruction is ever possible in the long passive; a version of (32) such as *wenn fünf Leute gleichzeitig zufriedenzustellen versucht würden* ‘if it were attempted to satisfy five people at the same time’ only seems to allow the wide scope reading of the TM-subject).

Given these properties, one can essentially adopt the analysis for the long-passive (as, e.g., in e.g. Wurmbrand 2001) to the modal passive/TM: the embedded object moves from the dependent VP into the matrix subject position. The trigger for this movement step is taken to be case given that the infinitive only corresponds to a VP (rather than a vP) and hence no accusative case is available. The embedded object thus moves into the matrix clause to get case. The restrictions on scope reconstruction could be motivated by the assumptions in Wurmbrand (2004) and Bobaljik and Wurmbrand (2005) on the interpretation of chains (which for reasons of space, we cannot discuss in detail here); but given that scope reconstruction does not seem to be completely blocked, those assumptions will have to be amended.

¹⁴The situation would thus be parallel to English TM where scope reconstruction is usually taken to be impossible, see, e.g., Řezáč (2006), Gluckman (2022:237f.); but see Longenbaugh (2017) for a different view.

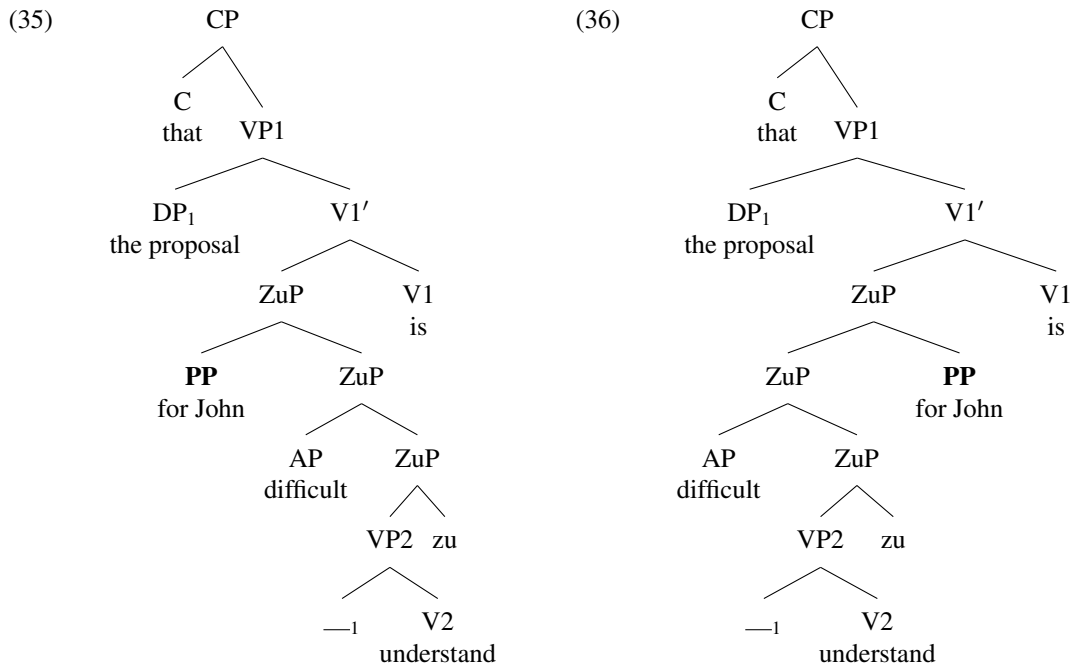
3.3. Accounting for restrictions on experiencer placement

Recall from above that the experiencer can only occur in certain positions in German TM:

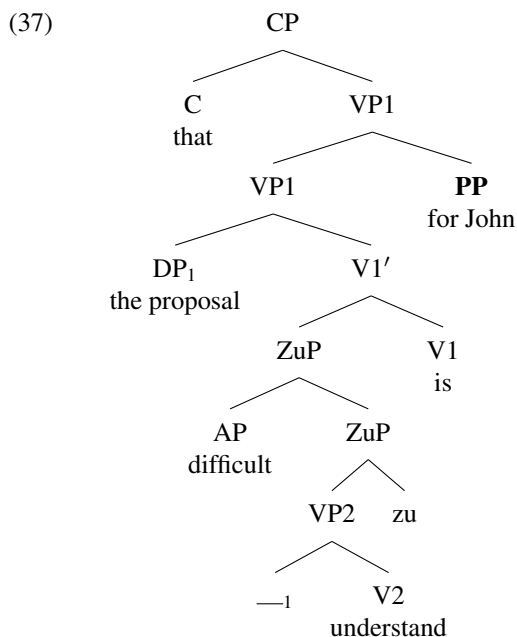
- (34) dass der Vorschlag {für Hans_A} schwer {*für H._B} zu verstehen { *für H._C} ist {für H._D}
that the.NOM proposal for John difficult for J. to understand.INF for J. is for J.
 ‘that the proposal is difficult to understand for John’

We will now show that these restrictions can be related to the constituency of the construction and an independent adjacency requirement in German verb clusters.

Given the modal passive analysis, the non-finite clause, labeled as *ZuP* in what follows, is the complement of matrix *sein* ‘be’. The adjective is analyzed as an adverbial adjective and, like adverbial adverbs quite generally, is left-adjoined to *ZuP*. One can assume that both AP and PP are adjuncts that are independent of each other given that each can occur without the other. Since the AP can have scope above (dispositional) or below (deontic) the modal, one must assume that it can attach above or below *ZuP*. In what follows, we will focus on examples where the adjective takes scope above the modal component. Semantically, the experiencer applies to the VP modified by the AP, i.e., the ‘toughness’ of an action is evaluated regarding the experiencer. Hence, the PP must be structurally higher/merged after the AP. Given that adjuncts can normally be adjoined on either side, the PP can be adjoined to *ZuP* on the left or on the right, as shown in (35) and (36) (again, I use English words for ease of representation):



Since PPs can be extraposed in German, the experiencer can also occur at the end of the clause:



These basic assumptions about the constituency account for three of the four placement facts: Left-adjunction to *ZuP* as in (35) accounts for the grammaticality of option A in (34). Extraposition of the PP in (37) accounts for the grammaticality of option D in (34). The ungrammaticality of placing the experiencer between adjective and infinitival clause, i.e., option B in (34), simply follows for semantic reasons given that the experiencer has to be merged higher than the adjective (see (45) below for evidence that A+PP do not form a constituent). What remains to be accounted for is placement option C in (34), which is ungrammatical. Given the possibility of right-adjunction of PPs in German as in (36), it cannot be related to constituency.

The impossibility for the experiencer to occur between the infinitival clause and matrix *sein* ‘be’ – option C – can be related to a general adjacency requirement of the verbal elements within verb clusters: Whenever verbs occur in the so-called descending order, i.e., when the governing verb follows the governed verb, the verbal elements cannot be interrupted by non-verbal material, see Haider (2003) for the first detailed discussion and Salzmann (2013) for an overview of the various proposals to account for this adjacency requirement. The following data are taken from Salzmann (2013:100f.): the PP-complement of the verb *reden* ‘speak’ is initially merged as a complement to the left of the verb and can be extraposed to VP (38a). In a verb cluster, however, the PP cannot be extraposed to any of the non-final verbs. The only grammatical position is after the entire cluster, (38b):

- (38) a. *dass er* {✓*darüber*} *redete* {✓*darüber*}
that he about.it talked.3sg about.it
 ‘that he talked about it’
- b. *dass man* ___ *reden* {**darüber*} *können* {**darüber*} *sollte* {✓*darüber*}
that one talk.INF about.it can.INF about.it should.3SG about.it
 ‘that one should be able to talk about it’

Importantly, the constraint only holds for verb clusters. Under VP-topicalization, extraposition of the PP to the lexical VP is unproblematic:

- (39) [___ *reden darüber*] *sollte* man schon *können*
talk.INF about.it should.3SG one indeed can.INF
 ‘one should indeed be able to talk about it’

This somewhat paradoxical state of affairs has found different explanations, e.g., by means of a base-generated complex head in Haider (2003), a prosodic restriction on verb clusters in Wurmbrand (2007) or cluster formation at PF in Salzmann (2013). Whatever may ultimately turn out to be the best account, what is crucial for our purposes is that experiencer placement in TM displays the same behavior: Once the infinitival clause is topicalized, the PP can occur after the infinitive:

- (40) [Schwer zu verstehen für Hans] war der Vorschlag nicht.
difficult to understand.INF for John was the proposal not
 ‘The proposal was not difficult to understand for John.’

Thus, as in other verb clusters, right-adjunction is only prohibited within the verb cluster; the constituency assumed in (36) thus also makes the right prediction for (40).

The constituency adopted in (35), (36) and (37) makes a few further correct predictions: First, given that AP and PP are adjuncts, they should be able to move independently, a prediction that is borne out ((41a) is repeated from above):

- (41) a. [Nur schwer]₂ ist der Vorschlag₁ {für H.} [—₂ —₁ zu verstehen] gewesen {für H.}.
only difficult is the proposal for J. to understand.INF been for J.
 ‘The proposal was really difficult to understand for John.’
 b. [Für Hans]₁ ist der Vorschlag [—₁ nur schwer zu verstehen] gewesen.
for John is the proposal only difficult to understand.INF been

Third, topicalization of *ZuP* without AP and PP is predicted to be grammatical given that adjuncts can generally be stranded under VP topicalization. The PP can then either occur before or after the AP since it can be adjoined to the left ((35)) or extraposed to the right ((37)):

- (42) [zu verstehen]₁ ist der Vorschlag {für Hans} sehr schwer —₁ gewesen {für Hans}
to understand.INF was the proposal for John very difficult been for John

Fourth, topicalization of *ZuP* with the AP but without the PP is predicted to be possible given that they form a constituent to the exclusion of the PP, which is then either stranded in its *ZuP*-adjoined position ((35)) or in extraposed position adjoined to the matrix VP (37)):

- (43) [schwer zu verstehen]₁ ist der Vorschlag {für Hans} —₁ gewesen {für Hans}
difficult to understand.INF is the proposal for John been for John

Fifth, the reverse, i.e., topicalization of *ZuP* with the PP but without the AP is correctly predicted to be bad as they do not form a constituent:

- (44) ??[zu verstehen für Hans]₁ ist der Vorschlag schwer —₁ gewesen
to understand.INF for John is the proposal difficult been

Sixth, topicalization of AP+PP without the *ZuP* is correctly predicted to be ungrammatical since the two do not form a constituent (some speakers seem to find such sentences acceptable, perhaps because the string is locally acceptable; the examples become clearly worse once such a parse is blocked by means of *nur* ‘only’):

- (45) ??[(Nur) Schwer für Hans] ist der Vorschlag [zu verstehen] gewesen.
only difficult for John is the proposal to understand.INF been

Thus, in summary, the basic constituency [PP [AP [*ZuP*]]] with some flexibility of positioning the PP makes the correct predictions for a wide range of data, including most of the placement possibilities of experiencers. There is one option that the constituency allows but is ruled out by an independent adjacency requirement in verb clusters. Thus restrictions on the placement of experiencers in German TM do not re-

quire reference to intervention but follow from independent properties of the construction/the language.^{15,16}

4. Conclusion

In this short paper, we have addressed the syntactic properties of the German translational equivalent of English *tough*-movement. We have seen that while its syntax differs radically from that of its English counterpart (no A'-movement/predicate abstraction, the adjective is just an adjunct), it also bans experiencers from certain positions; as in English, the sequence A-PP-InfP is degraded. Because of these differences, many of the proposals that have been made for the restrictions in English cannot be applied to German: Longenbaugh (2016) explains the intervention effect by means of the fact that A-movement is blocked because the infinitival clause is an external argument. But since A-movement is a crucial component of the German TM-variant and is certainly possible, this explanation does not work. A type mismatch as in Keine and Poole (2017) also cannot be the reason given that there is no evidence for predicate abstraction in the embedded clause in the first place. Rather, the restrictions we have observed simply follow from independent phrase structural properties of German, on the one hand from the constituency one would attribute to the construction under a modal passive analysis, on the other from an independent adjacency requirement in verb clusters. The resulting analysis makes additional correct predictions for various constituency tests. Our result is thus in line with approaches like Bruening (2014) and Salzmann (2023) where such restrictions are related to basic word order properties of the language rather than syntactic intervention. This is a welcome result because, just like in English, recall ex. (7), experiencers otherwise do not intervene in A-movement in German:

- (46) dass [der Vorschlag]₁ dem Peter [—₁ vernünftig zu sein] scheint
that the proposal the.DAT Peter reasonable to be.INF seems
 'that the proposal seems to John to be reasonable'

In addition, the degradedness also obtains in the attributive construction, thus, in the absence of A-movement, see (47), and in the absence of the adjective but with adverbials, see (48):

- (47) der {für Hans} schwer {*für Hans} zu verstehen-de { *für Hans} Vorschlag
the for John difficult for John to understand.INF-PTCP for John proposal
- (48) dass der Vorschlag {für H.} kaum {*für H.} zu verstehen { *für H.} ist {für H.}
that the proposal for J. hardly for J. to understand.INF for J. is for J.
 'that the proposal is hardly comprehensible for John'

In the appendix, I will briefly address two challenges. On the one hand, we will see that the 3rd Construction variant of German TM shows the same placement restrictions as the regular restructuring variant, even though its surface constituency is normally assumed to be more similar to that of the expletive variant. This may thus suggest that the syntax of the 3rd Construction has to be reconsidered in the light of these facts. On the other hand, we will address TM involving adjectives that do not occur in the expletive variant. For those, the modal passive analysis may seem less obvious, while the placement restrictions on experiencers are the same.

¹⁵As correctly pointed out by a reviewer, the experiencer placement facts also follow under approaches like Schwarzer (2019) where the adjective takes the CP as its complement as long as the experiencer is either adjoined to AP or merged as a specifier of A (or some separate head above A). The explanation for the unavailable orders would also be the same (constituency, adjacency requirement). Things are different in the approach by Keine and Poole (2017) where the adjective moves across the experiencer and thus constituency-wise, the order A-PP-InfP is possible. The constituency in Gluckman (2022) with the infinitival clause as an adjunct arguably does not rule out an experiencer between adjective and infinitival clause, but the semantic analysis in Gluckman (2021) does in that the experiencer could not be combined with the predicative adjective.

¹⁶The placement restrictions seem to be the same when the controller of the subject of the infinitive is expressed as a *von*-PP rather than a *für*-PP. This suggests that a *von*-PP is also merged above the adverbial adjective. Note that *von*-PPs in passive-like structures independently occur above adverbial adjectives.

Appendix: Further challenges

The modal passive in the 3rd Construction and intervention

In this first subsection of the appendix I will discuss the 3rd Construction variant of TM and restrictions on the placement of experiencers. As shown in van Riemsdijk (1982:79), the German/Dutch modal passive/TM-construction can also occur in a 3rd Construction variant (where the infinitival XP is extraposed but behaves like a restructuring infinitive):

- (49) a. Hij denkt dat dit bier niet is [te drinken].
he thinks that this beer not is to drink.INF
 ‘He thinks that this beer is not drinkable.’
 b. wobei das schwierig ist [zu beurteilen] bei einem Pferd
although that difficult is to assess.INF at a horse
 ‘although that is difficult to assess with a horse’¹⁷

This option is rather limited, though, in that extraposition quickly degrades once the infinitival clause becomes larger (cf. also van Riemsdijk 1982:79; note that the same holds for the 3rd Construction variant of the long passive):

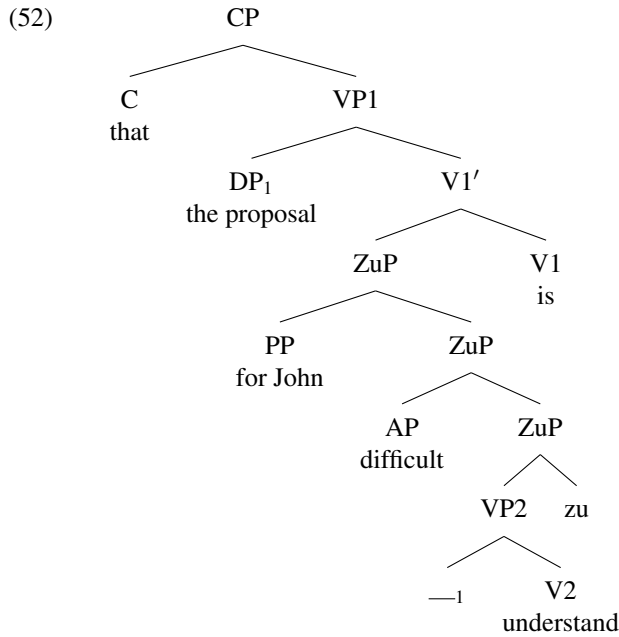
- (50) *??dass Hans schwer ist [davon zu überzeugen]*
that John difficult is of.it to convince.INF
 ‘that John is difficult to convince of this’

As in the regular restructuring variant, there also seem to be ‘intervention’ effects in that the PP can only occur in some but not all positions:

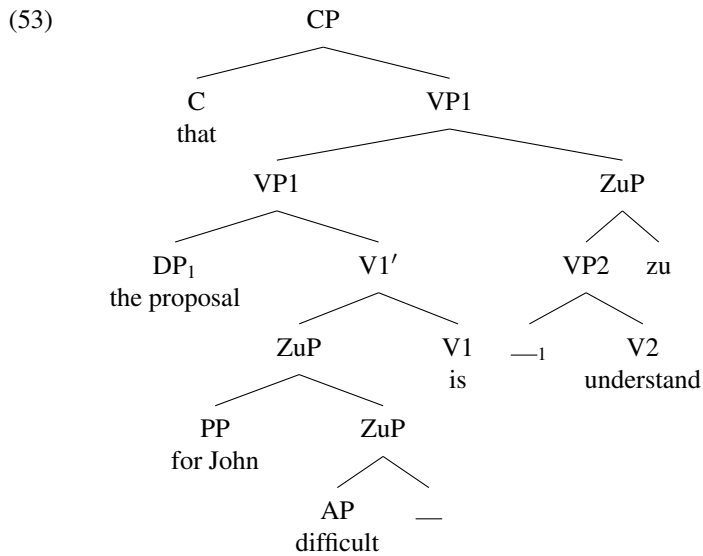
- (51) *dass der Vorschlag {für Hans_A} schwer {*für H._B} ist {*für H._C} zu verstehen {für H._D}*
that the proposal for John difficult for J. is for J. to understand.INF for John
 ‘that the proposal is difficult to understand for John’

These restrictions do not follow under the assumptions made so far. The basic constituency assumed for TM is repeated in (52) on the next page:

¹⁷<http://www.horse-gate-forum.com/forum/ratgeber-pferde/medizin-und-gesundheit/sonstiges/135929-seltsames-krankheitsbild-wer-wei%C3%9F-rat>.



The 3rd Construction is usually taken to involve remnant extraposition of the dependent infinitival clause. Applied to the case at hand, this would involve (remnant) extraposition of *ZuP*, leading to the structure in (53):



This correctly predicts that the PP should be able to occur to the left of the adjective as in option A. If the PP is extraposed all the way to the right, i.e., is right-adjoined to the higher segment of VP1, we obtain option D. However, since the constituency is essentially like that of the expletive construction, we also expect the PP to be grammatical when adjoined to the right of *ZuP* (option B) or when it undergoes short extraposition, i.e., adjunction to the lower segment of VP1 (option C).

The unacceptability of option B is unexpected given that adjacency in the verb cluster cannot really be at stake here since only the adjective and the copula are present, which do not require adjacency, at least not

in normal non-verbal predication, cf. *dass es schwer für Hans ist* ‘that it is difficult for John’. Perhaps there is a parsing issue in that the adjective is temporarily parsed as predicative with the PP as its complement but later has to be revised once the extraposed *ZuP* is encountered. The unacceptability of option C is equally surprising given that extraposition of a constituent to a position before the extraposed remnant *Inf-XP* is, in principle, possible, see Salzmann (2019b). In other words, the 3rd Construction variant shows the same restrictions as the regular restructuring version, even though the surface constituency is usually taken to be more similar to that of the expletive construction. Perhaps, the placement restrictions on experiencers suggest that this should be reconsidered.¹⁸

Tough-movement with other types of adjectival predicates

As in English, the German TM-variant also occurs with adjectives that do not occur in the expletive construction, e.g., with the equivalent of English *pretty to look at* (cf. Lasnik and Fiengo 1974:566):¹⁹

- (54) *dass das Haus (für die meisten) hübsch anzusehen ist*
that the house (for the most) pretty to.look.at.INF is
 ‘that the house is pretty to look at for most people’

TM with adjectives of this type is discussed in Holl (2010:chapter 6.2). He proposes an analysis that is similar to that of Gluckman (2022) for English in that the adjective is taken to be predicative, the infinitival clause is taken to be predicative as well – as the result of empty operator movement –, and the two combine via predicate modification. Analyzing the adjective as predicative seems inevitable given that adjectives like *hübsch* ‘pretty’ don’t have an adverbial use. Since TM based on the *pretty*-class is also possible in prenominal position, Holl (2010:186) is forced to assume a different syntax (but the same semantics) for that construction with the infinitive still as the head.

Interestingly, as far as I can tell, the placement possibilities for the experiencer are the same as in the TM-version discussed in the main part of the paper, i.e., the PP cannot occur between adjective and infinitive, and not between the infinitive and matrix ‘be’. The latter is not surprising given the general adjacency requirement within the verb cluster discussed above. But the fact that the PP cannot occur between adjective and infinitive at least cannot be related to the constituency: if the PP is adjoined to the adjective (or is treated as a complement), it should be possible for it to occur to the right of the adjective. To account for this positional restriction, recourse to semantic composition (along the lines of Keine and Poole 2017) would be necessary: the PP could simply not combine with a predicative adjective. This would lead to the somewhat peculiar result that the surface structure is the same as in the other TM-variant, but the explanation for the placement restrictions would be partially different, an unsatisfactory state of affairs.

Even worse, it is actually not clear that an analysis in terms of operator movement is justified. Note that this would predict restrictions on extraction from the infinitive. But as far as I can tell, there are no restrictions whatsoever, just like in TM based on *tough*-like adjectives. The following examples illustrate this (in both cases, the topicalized constituent clearly modifies the infinitive, it is not compatible with ‘be’):

¹⁸One of the reviewers suggest that the 3rd Construction has a different syntax, namely one that is more similar to English TM with the *ZuP* as a complement of A. While not impossible, it is not clear whether anything really points in that direction. The surface order can also be obtained if what is extraposed is the lower segment of *ZuP*, as assumed above. The fact that the experiencer leads to degradation when occurring to the right of *ZuP* may in fact be an indication that we are not dealing with a predicative adjective. Finally, the 3rd Construction version is also possible in the absence of an adjective. This is shown by the Dutch example above. While extremely restricted in German, one can find examples like *weil es kaum ist zu glauben* ‘because it is hard to believe’.

¹⁹Demske-Neumann (1994:186) provides a list of adjectives that differ from the *easy* class in also predicating properties of individuals. However, most of them (e.g., *lecker* ‘tasty’, *lustig* ‘funny’ etc.) differ from the *pretty* class in that they are also compatible with the expletive construction, i.e., they can also predicate properties of propositions and hence are not equally interesting.

As pointed out by one of the reviewers, the availability of an expletive version is sometimes taken to be a defining property of *tough*-movement. This has the consequence that similarly looking constructions like the one to be discussed would no longer be expected to have the same syntax. As the facts below show, at least for German, this may be correct. For relevant discussion about the relationship between *tough*-movement and the modal passive in Romance languages, see, e.g., Giurgea and Soare (2010).

- (55) a. [Von Hand] ist die Tuba unhandlich zu tragen.
by hand is the tuba unwieldy to carry.INF
 ‘The tuba is unwieldy to carry by hand.’
- b. [Mit eigenen Augen] ist sie hübsch anzusehen.
with own eyes is she pretty to.look.at.INF
 ‘She is pretty to look at with one’s own eyes.’

But without operator movement it is not clear how to turn the infinitival clause into a predicate. For reasons of space, I leave further discussion of this challenging case for another occasion.²⁰

Acknowledgments

I am grateful to two reviewers for very helpful comments that have led to a substantial improvement of the paper.

It was Johan who introduced me to *tough*-movement at a very early stage of my PhD. I was intrigued but at that point couldn’t do anything with it. It wasn’t until several years later that I realized that the concept could be fruitfully applied to the prolepsis construction I was studying in my dissertation, a revised version of which appeared in Salzmann (2017).

Van harte gefeliciteerd, Johan! Thank you so much for your support over many years and your contributions to the field!

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²⁰Regarding constituency tests, the *pretty*-class seems to behave like the *tough*-class in that the adjective or PP can be fronted by itself, A+*Zu*P can be fronted and A+PP cannot be fronted. There is one notable difference, though: Fronting the *Zu*P by itself is rather degraded:

- (i) ??Zu tragen ist die Tuba (für Kinder) unhandlich gewesen.
to carry.INF is the tuba for kids unwieldy been
 ‘The tuba was unwieldy to carry for kids.’

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