

# *Only to forget it in the fridge – On the semantics of German nur-um clauses*<sup>1</sup>

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**Abstract.** This paper presents a compositional account for the meaning of German Telic clauses with *nur* ‘only’ (*Hugo hat einen Nudelsalat gemacht, nur um ihn im Kühlschrank zu vergessen*. ‘Hugo made a pasta salad only to forget it in the fridge.’) I argue that the meaning of ‘unexpected outcome’ arises compositionally from (i) a mirative meaning for *only* and (ii) the connective *um* expressing an outcome. The account raises question about the meaning of Rationale clause connectives like German *um* or French *pour*.

**Keywords:** *only*, Rationale clauses, Telic clauses, adjunct clauses

## 1. Introduction

This paper is about the meaning of constructions of the type in (1a).

- (1) Hugo hat einen leckeren Nudelsalat gemacht,  
Hugo has a delicious pasta-salad made  
‘Hugo made a delicious pasta salad.’
- a. nur um ihn im Kühlschrank zu vergessen.  
only um it in fridge to forget  
‘only to forget it in the fridge.’ TELIC  
≠ only because he wanted to forget it in the fridge.  
≈ but then he forgot it in the fridge.
- b. nur um seine Mutter zu beeindrucken.  
only um his mother to impress  
only to impress his mother.’ RATIONALE  
≈ only because he wanted to impress his mother.  
≠ but then he impressed his mother.

This type of clause is known as Telic clause or prospective clause and often taken to express a surprising or unwanted outcome to the main clause. Because of its morphological parallel, an obvious candidate for comparison is the Rationale clause in (1b). Both embedded clauses involve *nur* ‘only’, the complementizer *um* and an infinitive clause with *zu*. Despite their morphological parallels, (1a) and (1b) have different meanings as shown in the paraphrases. Whereas the Rationale clause in (1b) permits a casual paraphrase,<sup>2</sup> the Telic clause is seems more accurately described by a combination of *but then*.

The English Telic clause has primarily been discussed with respect to questions of adjunct control (Green, 2019, 2018; Landau, 2021; Huettner, 1989; Whelpton, 1995). The term ‘Telic clause’ was coined by Whelpton (1995), based on the intuition that the Telic clause expresses an outcome (Greek ‘*telos*’) of the main clause event. To my knowledge, Whelpton (2001) provides the only semantic account.

<sup>1</sup>Special thanks to Felix Frühauf for helpful discussion.

<sup>2</sup>For the present purposes I adopt a causal paraphrase of the Rationale clauses, but see Frühauf (2024) for arguments in favor of an enabling analysis for German *um*.

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In the literature on German (cf. Jędrzejowski 2022; Pittner 2013; Leys 1991; Pauly 2013), the type of clause in (1a) is known as involving the ‘prospective’ use of *um*. Leys (1991) called it ‘prospektives *um*’ based on the intuition that the second event is the prospect of the first).

The remainder of this paper is structured as follows: Section 2 examines some syntactic and semantic properties of the Telic clause in comparison with the Rationale clause, presents cross-linguistic data and highlights the observation that certain types of adverbial information appear to license the Telic clause. In Section 3, I review Whelpton (2001)’s analysis of the English Telic clause and propose a mirative interpretation of *only*, following Zeevat (2009). The main question I will be concerned with is: How does the meaning of ‘unexpected outcome’ arise compositionally from the parts of an *nur-um-zu*-construction as in (1a), i.e. *nur* and *um*? Finally, Section 4 addresses unresolved issues and outlines open questions for future research.

## 2. Properties of the Telic clause

This section is structured as follows: In section 2.1, I compare telic and rationale clauses with respect to their semantic and syntactic properties. In section 2.2 I show that telic clauses are a cross-linguistic phenomenon. Finally, in section 2.3, I provide data showing that German telic clauses frequently co-occur with certain types of elements, that form a heterogeneous group.

### 2.1. Telic clauses vs. Rationale clauses

This section compares Telic clauses in German and English with Rationale clauses, highlighting several key distinctions. (i) Telic clauses are non-modal, whereas Rationale clauses are modal. (ii) The two clause types impose different requirements on their main clauses. (iii) Rationale clauses can be fronted, while Telic clauses cannot (section 2.1.2). (iv) Rationale clauses permit both wide and narrow scope readings with respect to matrix negation, whereas Telic clauses fall within the scope of matrix negation only under certain conditions (section 2.1.3). (v) Rationale clauses can be controlled by an implicit agent, this property that remains debated for Telic clauses (section 2.1.4). Lastly, (vi) Rationale clauses allow object control with certain verbs, a feature not found in Telic clauses (section 2.1.5).

#### 2.1.1. Telic clauses are non-modal, Rationale clauses are modal

Rationale clauses have a modal meaning, pertaining to the desires or wishes of some individual, thus a continuation, as in (2a), which negates the content of the embedded clause, is grammatical. Telic clauses on the other hand assert the truth of their content hence (3a) is not licensed as a continuation of (3).

- (2) Hugo hat einen Nudelsalat gemacht, nur um seine Mutter zu beeindrucken,  
 Hugo has a pasta-salad made only UM his mother to impress  
 ‘Hugo made a pasta salad, only to impress his mother...’  
 a. aber sie war nicht beeindruckt.  
 but she was not impressed  
 ‘...but she wasn’t impressed.’

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- (3) Hugo hat einen Nudelsalat gemacht, nur um ihn im Kühlschrank zu vergessen  
Hugo has a pasta-salad made only UM him in.the fridge to forget  
'Hugo made a pasta salad, only to forget it in the fridge'  
a. #aber er hat ihn nicht vergessen.  
but he has him not forgot  
but he didn't forget it.

The truth of the Telic clause event is asserted, rather than presupposed. This can be seen in (4). Embedding under the modal *möglich* 'possible' cancels the inference that Hugo made a pasta salad.

- (4) Er war in letzter Zeit etwas zerstreut. Es ist gut möglich, dass Hugo einen Nudelsalat gemacht hat, nur um ihn im Kühlschrank zu vergessen.  
'He has been scattered lately. It's possible that Hugo makes a pasta salad, only to forget in the fridge.'

For the main clause, Rationale clauses and Telic clauses have different restrictions. Following Farkas (1988), Rationale clauses require a RESP holder (someone responsible) to be present either overtly, as in (5a) or somehow recoverable from context, as in (5b). Where there is no RESP holder as in (5c) or (5d) the Rationale clause is not licensed. The examples in (5) are taken from Farkas (1988:36)

- (5) a. Boris read 'Anna Karenina' in order to impress Mary.  
b. The shopwindow has a big sale sign in it in order to attract customers.  
c. #Boris resembles his father in order to annoy his grandmother.  
d. #The weather has been good lately in order to please the tourists.

The Telic clause differs from the Rationale clause in that it does not require a RESP holder to be felicitous. This is shown in the contrast between (5d) and (6d).

- (6) a. Boris read 'Anna Karenina' only to find out he wasn't supposed to.  
b. The shopwindow has a big sale sign in it only to be covered by a truck.  
c. #Boris resembles his father only to be nothing like him.  
d. The weather has been good lately only to turn bad when the tourists came.

The Telic clause, however, disallows the use of individual level predicates as noted by Whelpton (2001). For Whelpton, ungrammaticality of (6c) is due to a transitional requirement which is part of the meaning of the Telic clause. It requires a transition from the main clause event to the embedded clause event. In (6c), transition from the individual level predicate *resemble* is not possible. (cf. Section 3.2)

#### 2.1.2. Telic clauses cannot be fronted, Rationale clauses can

A striking difference between the Telic and the Rationale clause is that the Telic clause cannot be fronted, shown by the contrast in (7).

- (7) a. Hugo hat einen Nudelsalat gemacht, nur um ihn im Kühlschrank zu vergessen.  
'Hugo made a pasta salad, only to forget it in the fridge.'

- b. \*Nur um ihn im Kühlschrank zu vergessen, hat Hugo einen Nudelsalat gemacht.  
'Only to forget it in the fridge, Hugo made a pasta salad.'

The Rationale clause in contrast can be fronted, both orders are possible in (8).

- (8) a. Hugo hat einen Nudelsalat gemacht, nur um seine Mutter zu beeindrucken.  
'Hugo made a pasta salad, only to impress his mother.'
- b. Nur um seine Mutter zu beeindrucken, hat Hugo einen Nudelsalat gemacht.  
'Only to impress his mother, Hugo made a pasta salad.'

Pittner (2013:515) speculates for German that the fixed linear order is due to an iconicity principle mirroring the temporal order of events. Similarly, Landau (2021:77) suspects that this restriction is not syntactic but due to general constraints on how information is presented; If the function of the Telic clause is to express an unexpected outcome, the expectations have to be generated in the main clause, thus it must precede the Telic clause.

### 2.1.3. Telic clauses and matrix negation

With respect to negation in the matrix clause, the Rationale clause in (9) is ambiguous between a wide scope reading, brought out by the context (9a) and a narrow scope reading, which is true in the context (9b).

- (9) Hugo didn't go to the party, in order to sleep.
- a. Context: *Hugo went to the party. It was not his goal to sleep there.*
- b. Context: *Hugo stayed home. His goal was to sleep.*

Following Landau (2021), the English Telic clause cannot be in the scope of matrix negation, thus an ambiguity as in (9) does not arise with the Telic clause. In (10), negation is confined to the matrix clause thus (10) is true in the narrow scope negation context in (10b) but not in the context in (10a).

- (10) Hugo didn't go to the party, only to find out his crush was there.
- a. Context: *Hugo went to the party. He did not find out that his crush was also there.*
- b. Context: *Hugo stayed home. He heard later that his crush had been at the party.*

For the same reason, i.e. the inability of the Telic clause to in the scope of matrix negation, the example by Landau (2021) in (11) receives a non-sensical interpretation where the storm didn't subside but then returned.

- (11) #The storm didn't subside on Wednesday, only to return with a vengeance on the weekend.

Turning to German, Leys (1991) and Pittner (2013:515) agree that it is possible for the Telic clause to be in the scope of negation. Leys (1991:181) provides (12) and (13) as an example. In the positive sentence in (12) the speaker makes a claim about the typical course of a disease, in (13) this claim is negated. The only sensible interpretation is one where the fever did rise but didn't subside again. It seems that negation is not confined to the main clause in (13).

- (12) Das Fieber steigt gewöhnlich im Laufe des Nachmittags, um dann gegen  
the fever rises normally in.the course of.the afternoon, UM then around

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Abend wieder abzuklingen.

evening again to.subside

‘The fever usually rises during the afternoon, to then subside again around the evening.’

- (13) In diesem Fall steigt das Fieber nicht um dann am Abend wieder abzuklingen,  
in this case rises the fever not UM then in.the evening again subside  
sondern um dann seinen Höhepunkt zu erreichen.  
but UM then his high.point to reach  
‘In this case the fever does not rise, only to subside again in the evening, but to reach  
its peak at this point.’

However, notice that the presence of *in diesem Fall* ‘in this case’ and the *sondern* ‘but’-continuation is essential for the negated Telic-clause interpretation to arise. The example becomes nonsensical without them; (14) means that the fever did not rise and then later in the evening it subsided.

- (14) #Das Fieber steigt nicht, um dann am Abend wieder abzuklingen.  
the fever rises not UM then in.the evening again to.subside  
‘The fever does not rise, only to subside again in the evening.’

Similarly, Frühauf (2024) gives the example in (15a) which seems to show that German Telic clauses can be in the scope of matrix negation, but notes (p.c.) that *Dieses Mal* ‘This time’ is necessary for the wide scope negation reading. Without *in diesem Fall* ‘in this case’, (15b) receives a nonsensical interpretation, where the sun first does not rise and then disappears behind the clouds.

- (15) a. Dieses Mal ist die Sonne nicht aufgegangen, nur um gleich wieder  
this time is the sun not risen only UM immediately again  
hinter den Wolken zu verschwinden.  
behin the clouds to disappear  
‘This time, the sun didn’t rise only to immediately disappear behind the clouds  
again.’  
b. Die Sonne ist nicht aufgegangen, nur um gleich wieder hinter den Wolken zu  
verschwinden. the sun is no risen only UM immediately again behind the clouds  
to disappear  
‘The sun did not rise, only to immediately disappear again behind the clouds.’

It seems that expressions like *dieses Mal* ‘this time’ or *in diesem Fall* ‘in this case’ relating to a contrast are crucial in allowing the Telic clause to be negated. I leave an explanation for future research at this point.

### 2.1.4. Telic clauses don’t allow control by an implicit agent

Most of the literature on English Telic clauses claims that control by implicit agents is impossible and PRO must be syntactically bound by its antecedent (cf. Green 2019, Huettner 1989, Whelpton 1995). The Examples in (16) are from Green (2019:13).<sup>3</sup>

<sup>3</sup>In contrast, the Rationale clause allows control by an implicit agent, as exemplified in the Rationale variant of the passive construction in (16a) in (i), which is grammatical. (see also example (5b) above)

(i) The meal was devoured PRO to please the cook.

- (16) a. #The meal was devoured only to discover it was poisoned.  
 b. #The sun rose, [only PRO to find that ice now covered the camp].  
 c. #My parachute opened, [only PRO to realize that it was torn].

An exception is Landau (2021:51), who presents naturally occurring examples from the internet challenging this claim. (17) exhibits control by a contextual antecedent, and is almost parallel to the example by Green above in (16a).

- (17) A welcome cup of tea was prepared only PRO to find the water was full of soot.

Another example for a non c-commanding antecedent is (18), where following Landau, PRO is controlled by the speaker of the context.

- (18) There's a lot of tension building up throughout the film, only PRO to be let down by the final twist.

### 2.1.5. Telic clauses don't allow object control

As noted by Frühauf (2024:215) for German, the Telic clause differs from the Rationale in that it cannot have object control. The Rationale clause can receive object control with certain verbs like *schicken* 'send', as in (19). Examples (19) – (20) are from Frühauf (2024:215).

- (19) Peter<sub>1</sub> schickt Susi<sub>2</sub> jeden Tag weg, um PRO<sub>2</sub> ihm<sub>2</sub> eine Zeitung zu kaufen.  
 Peter sends Susi every day away um PRO him a newspaper to buy  
 'Everyday, Peter sends Susi away for her to buy him a newspaper.'

The contrast in (20) shows that in the Telic clause PRO can only be bound by the subject *Peter*.

- (20) a. Peter<sub>1</sub> schickt Susi<sub>2</sub> jeden Tag weg, nur um PRO<sub>1</sub> ihr<sub>2</sub> am nächsten Tag  
 Peter sends Susi every day away only um PRO her on.the next day  
 wieder über den Weg zu laufen.  
 again over the way to walk  
 'Everyday, Peter sends Susi away, only to cross her path again the next day.'  
 b. \*Peter<sub>1</sub> schickt Susi<sub>2</sub> jeden Tag weg, nur um PRO<sub>2</sub> ihm<sub>1</sub> am nächsten Tag  
 Peter sends Susi every day away only um PRO him on.the next day  
 wieder über den Weg zu laufen.  
 again over the way to walk  
 Int.: 'Everyday, Peter sends Susi away, only for her to cross his path again the next day.'

But interestingly, as noted by Pauly (2013:111), binding of a pronoun by a quantifier in object position is possible, as (21) shows. The pronoun *sie* in the Telic clause can be bound by the QP *jede Situation*.

- (21) Ungewollt verschlimmert er [jede Situation]<sub>i</sub>, um sie<sub>i</sub> schließlich doch ebenso  
 unwillingly worsens he every situation UM her eventually PRT equally  
 ungewollt zu meistern.  
 unwillingly to master

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‘He unwillingly makes every situation worse only to equally unwillingly master it.’

### 2.1.6. Summary

Telic clauses, unlike rationale clauses, cannot be fronted. They appear to attach above negation but below the subject, allowing subject control. While object control is not possible, a quantifier in the matrix object position can bind a variable within the telic clause. These and other observations have led researchers to conclude that telic clauses attach high in the syntactic structure as TP adjuncts (cf. Green 2019; Landau 2021; Whelpton 1995).

### 2.2. Telic clauses cross-linguistically

In many languages, constructions involving connectives typically associated with rationale clauses can, under certain conditions, receive a Telic interpretation. The examples below feature connectives that are standardly used in Rationale clauses, such as Italian *per*, French *pour*, Polish *żeby*, Russian *чтобы*. They all have a telic interpretation.

- (22) Ho preparato un’insalata di pasta per poi dimenticarla.  
I prepared a.salad of pasta PER then forget.it  
‘I made a pasta-salad, only to forget it.’ Italian
- (23) Hugo a préparé une salade pour finalement l’oublier au frigo.  
Hugo has prepared a salad POUR eventually it.forget in.the fridge  
‘Hugo prepared a salad, only to forget it in the fridge.’ French
- (24) Cracovia prowadziła prawie cały mecz, żeby ostatecznie przegrać 1:3.  
Crocovia was.leading almost entire game in.order ultimately lose 1:3  
‘Cracovia was leading almost the entire game only to ultimately lose 1:3.’ Polish<sup>4</sup>
- (25) Hugo prigotovil pastu, čtoby v rezultate zabyt ee v holodilníke.  
Hugo prepared pasta, in.order in result forget it in fridge.  
‘Hugo made a pasta, to forget it in the fridge as a result.’ Russian f

The following generalization seems to hold: If a language has Telic clauses, it is formed with a connective that is normally used to express a Rationale clause. The reverse is not true: Not every Rationale connective permits a telic use. For example, English *in order to* does not allow a Telic reading. (26) can only receive a rationale interpretation.

- (26) Hugo made a pasta salad only in order to forget it in the fridge. (only Rationale)

Similarly, in French only *pour* allows a telic reading, whereas *afin de* does not, shown in (27).

- (27) Hugo a préparé une salade {pour/#afin de} finalement l’oublier au frigo.  
Hugo has prepared a salad POUR/#AFIN DE eventually it.forget in.the fridge  
‘Hugo prepared a salad, only to forget it in the fridge.’

The Telic clause often co-occurs with a variety of elements within and across languages. These include adverbs expressing temporal succession like *poi* ‘then’ in Italian, adverbs marking an

<sup>4</sup>Thanks to Marcin Wągiel for providing me with this naturally occurring example.

endpoint or culmination of an event like *finalement* ‘eventually’ in French, *ostatecznie* ‘ultimately’ in Polish or *v rezultate* ‘as a result’ in Russian and exclusives like *nur/only* in German and English.<sup>5</sup>

Note, moreover that the Telic clause, as I have presented it above, is not a universal phenomenon. Mandarin for instance seems to not allow a combination of an exclusive particle with an element expressing a rationale in the telic interpretation.

### 2.3. Telic clauses co-occur with a variety of elements in German

In German, we find a wide range of adverbials in the Telic clause, among which we find expressions like *dann* ‘then’ as in (28) or (29), temporal information *kurz darauf* ‘shortly thereafter’ as in (30). Discourse particle *doch*, expressing a contrast, as in (28), additives like *auch* ‘too/also’ as in (31) as well as elements expressing an endpoint like *schließlich* or *letztendlich* ‘finally/ultimately’. Examples (28) – (31) are taken from Leys (1991:179).

- (28) Sie stellte den Regenschirm neben sich, um ihn (dann doch noch) zu vergessen.  
she put the umbrella next herself um it (then DOCH still) to forget  
‘She put the umbrella next to her, to (then DOCH still) forget.’
- (29) Erst wurde der Himmel feuerrot, um (dann) in ein sanftes Gelb überzugehen.  
first became the sky fiery.red um (then) in a soft yellow to.shift  
‘First the sky turned fiery red, to (then) shift into a soft yellow.’
- (30) Er kam in seine Heimatstadt zurück, um (dort kurz darauf) zu sterben.  
he came in his hometown back um (there shortly thereafter) to die  
‘He returned to his hometown, to die (there shortly thereafter).’
- (31) Er wurde Soldat, um es (auch sein Leben lang) zu bleiben.  
he became soldier um it (also his life long) to remain  
‘He became a soldier to remain one (for his entire life too).’

Removal of the bracketed parts results in a strongly preferred Rationale reading. Without the bracketed elements, (28) receives a reading where the subject intends to forget the umbrella and arranges for the circumstances to allow for the forgetting by placing the umbrella next to her. (30) without the temporal information says the subject decided to die in his home town and thus came back. Without *dann* ‘then’, (29) receives a nonsensical Rationale reading, where the sky is attributed with an intention. (31) minus *auch sein Leben lang* ‘all his life too’ receives a Rationale interpretation, where the subject became a soldier intending to remain a soldier.

Combinations of particles are also common. The naturally occurring example in (32) involves *nur* ‘only’, *dann* ‘then’, discourse particle *doch* and *wieder* ‘again’.

- (32) Jeden Tag nehme ich mir vor, genau das zu tun, nur um dann doch wieder an den  
every day take I me PRT exactly this to do only UM then DOCH again at the

<sup>5</sup>There is variation with respect to the use of exclusives in the pre-connective position. It appears that French *seulement pour* and Italian *solo per* can only receive a Rationale reading, whereas German *nur um* and English *only to* are normal ways of expressing the Telic meaning.



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Schrank zu marschieren um irgendwas Süßes zu essen.

cupboard to march UM something sweet to eat.

‘Every day I tell myself I’ll do exactly that, only to end up marching to the cupboard to grab something sweet to eat.’

A minimal pair is (33). Whereas (33a) is interpreted as Rationale clause, addition of *dort schon bald darauf* ‘there soon after’ in (33b) strongly suggests a Telic reading.

- (33) a. Sie zog nach Amerika, um zu heiraten.  
she moved to America UM to marry  
‘She moved to America to get married.’  
b. Sie zog nach Amerika, um dort schon bald darauf zu heiraten.  
she moved to America UM there already soon after to marry  
‘She moved to America to get married there soon after.’ (Leys, 1991:182)

As Frühauf (2024:213) notes, addition of *unerwarteterweise* ‘unexpectedly’ most clearly disambiguates the sentences towards a Telic reading. In this case, the attitude expressed by *unexpectedly* cannot be part of the subjects desires and the only sensible interpretation is a Telic one, where the surprise is attributed to the speaker.

- (34) Sie zog nach Amerika, um dort schon bald darauf unerwarteterweise zu  
she moved to America UM there already soon after unexpectedly to  
heiraten.  
marry  
‘She moved to America to get married there soon after unexpectedly.’

While no single element is strictly necessary for a Telic reading, it seems at least one must be present for the Telic interpretation of an *um-zu* clause to be available. Perhaps the presence of these elements can be seen as a signal for the hearer to access a non-canonical reading of the *um*-clause, akin to *if*-clauses in their optative reading, which often co-occur with *only* or *nur* or *bloß* in German (cf. Grosz 2012).

## 2.4. Summary

Telic and Rationale clauses differ with respect to their syntactic properties, such as control and attachment height and also in the meanings they express. Whereas the Rationale clause has a modal content, the Telic clause asserts its content. Cross-linguistically, it is common for a connective typically used in a Rationale clause to take on a Telic interpretation. The final observation is that, the Telic clause co-occurs with certain elements that do not appear to form a natural class.

## 3. The meaning of the Telic clause

In this section, I first review a common intuition that the Telic clause involves a kind of anti-purpose and argue against pursuing this line based on examples involving inanimate subjects in section 3.1. I then review Whelpton (2001)’s account of English Telic clauses in section 3.2 and introduce Zeevat (2009)’s mirative analysis of *only* in section 3.3. In section 3.4, I make

my proposal: the meaning of ‘unexpected outcome’ derives from *nur* ‘only’

### 3.1. The Telic clause does not express anti-purpose

One might think that a plausible explanation of the Telic clause involves reduction to an underlying Rationale meaning. The Telic clause in (35a) seems to convey precisely the opposite of the subject’s intention, paraphrasable by *...but Hugo forgot it in the fridge, which is the last thing he wanted*. It appears that an implicit goal of the main clause is contradicted by the Telic clause. A paraphrase involving an implicit purpose reflecting this view is given in (35b).

- (35) a. Hugo made a pasta salad, only to forget it in the fridge.
- b. Hugo made a pasta salad (in order to bring it to the picnic) only to forget it in the fridge.

If the meaning of the Telic clause consisted in negating an implicit goal of the sentence’s subject, we would expect cases where the main clause does not involve an animate subject (the potential attitude holder) to be ungrammatical, but examples where no subject’s goals are involved are fine, as in (36) or (37) with inanimate subjects.

- (36) Erst wurde der Himmel feuerrot, um dann in ein sanftes Gelb überzugehen.  
first became the sky firey.red UM then in a soft yellow transition  
‘First the sky turned fiery red, to then transition into a soft yellow.’ (Leys, 1991:179)
- (37) Die Maschine wurde repariert, nur um nach einer Woche wieder kaputt zu gehen.  
The machine was repaired only UM after one week again broken to go  
‘The machine was repaired only to break again after one week.’

### 3.2. Whelpton (2001)’s expectation based account of English Telic clauses

Whelpton (2001)’s main point is that the Telic clause expresses an outcome to the main clause. An outcome is an event which is related to a preceding event by more than a temporal but less than a causal relation. The outcome expressed in by the Telic clause can either (i) violate expectations of the main clause as in (38) or (ii) fulfill the expectations, as in (39) (Whelpton, 2001:332). When *only* is used, the adversative reading is expressed. Depending on the content of the clause, *only*-insertion is obligatory as in (38) or impossible as in (39).

- (38) John hung his coat up, \*(only) to realize that he had to go out again. (Whelpton, 2001:332)
- (39) Wilson raced down the pitch, (\*only) to score in the final minute. (Whelpton, 2001:332)

Following Whelpton, insertion of *only* in (39) is impossible because the main clause arouses the expectation that Wilson might now score a goal, which is fulfilled by the Telic clause. In (38), addition of *only* is obligatory because the expectations resulting from John hanging up his coat is that he will stay. Insertion of *only* in (40) results in an adversative reading where we must assume that finding his chauffeur is not wanted by John.

- (40) John entered the room, (only) to find his chauffeur waiting for him. (Whelpton, 2001:324)

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Further, Whelpton notes that individual level predicates are not allowed in a Telic construction. Neither in the main clause as in (41b) nor in the embedded clause (41a). He posits that this is due to a transitional requirement as part of TELOS. His examples and judgements are in (41).

- (41) a. \*The new student was expected to be intelligent, only to be an idiot.  
b. ?\*John was very intelligent, only to sign a legal document without reading it.

States are allowed if they are delimited by temporal information as in (42).

- (42) a. \*I was healthy only to be sick.  
b. I was healthy all summer, only to be sick during the exam period.

Lastly, Whelpton (2001:332) notes that the content of the Telic clause cannot be pre-determined by the main clause event. That is, the outcome expressed by the Telic clause cannot be a completely expected continuation of stereotypical world ongoings. He provides the examples in (43) and (44).

- (43) #Mary opened a new bank account, to receive her ATM card 10 days later.

- (44) # Sarah bought a winning lottery ticket, (only) to be paid her cash prize.

Opening a bank account usually leads to receiving an ATM card in the mail soon after. Being paid one's cash prize is a natural consequence of buying a winning lottery ticket. In both cases the events described by the Telic clause stand in a too close relationship with the main clause.

Resolution of expectations, non-possibility of individual level predicates and the fact that the outcome cannot be pre-determined leads Whelpton to posit an event predicate TELOS as head of English Telic clauses as in (45).

- (45)  $TELOS(e^1, e^2) \leftrightarrow$  there is a transition from  $e^1$  to  $e^2$ , where  $e^2$  supplies a resolution of expectations aroused by  $e^1$  and that resolution is not pre-determined by those expectations

TELOS in (45) is distinct from RATIONALE in (46), which is the event predicate heading Rationale clauses assumed by Whelpton (2001).

- (46)  $RATIONALE(x, e, \wedge p) \leftrightarrow$  x brings about e with the intention that p

This reflects the view that Telic and Rationale clauses constitute two distinct clause types with two different meanings. Given the fact that cross-linguistically Rationale and Telic clauses share the same morphology, i.e. are expressed by the same connective (e.g. French *pour*, German *um*), it would be desirable to have a semantic representation that reflects this overlap.

Whelpton attributes the forced adversative outcome meaning in the cases where *only* is present to a distinct kind of *only*, namely 'connective' *only* as in the example in (47). (Also called 'adversative *only*', 'exceptive *only*', 'discourse *only*' or 'propositional *only*')

- (47) Bill is a nice guy, only he talks to much. Jespersen (1949)

Based on the meaning parallel between the finite case in (48a) and the Telic clause in (48b), he argues that Telic *only* in (48b) is distinct from standard focus-sensitive *only*.

- (48) a. John did apply for the post as Papal secretary, only he was rejected as an atheist.  
 b. John did apply for the post as Papal secretary, only to be rejected as an atheist.

Further, he observes that the contrast in (49), where a Rationale clause is modified by *only* does not carry over straightforwardly to (50) where a Telic clause involves *only*. Whereas (49b) negates other possible goals (e.g. *in order to please his mother, in order to get to school more easily*), Whelpton (2001) notes that (50b) does not mean that all other outcomes are negated

- (49) a. John bought a car, in order to impress his friends.  
 b. John bought a car, only in order to impress his friends.  
 (50) a. John came home, to find that Mary had left already.  
 b. John came home, only to find that Mary had left already.

The paraphrasability with *but* and the non-exclusion of alternatives leads Whelpton (2001:329) to conclude that the *only* involved in Telic clauses is of a fundamentally different type than focus sensitive *only*.

In line with recent scalar approaches to *only* (cf. Klinedinst 2004; Beaver and Clark 2008; Zeevat 2009; Greenberg 2022). And a newly emerging interest in adversative/connective *only* (cf. von Stechow and Iatridou 2019; Benbaji and Doron 2023; Davis and Winterstein 2022; Hill 2020), I show in the next sections that a scalar analysis, in particular, a mirative analysis of *nur* ‘only’ can explain the data without positing homophony for *only*. In the next section I present Zeevat (2009)’s analysis of *only*.

### 3.3. Zeevat’s mirative only

Zeevat (2009)’s analysis of *only* incorporates the intuition that what is expressed by *only* is a denial of expectation. Under this view, a speaker who uses *only* is surprised at how disappointingly little the quantity of the element in focus is. Zeevat calls this “mirativity of low quantity” using the term mirativity coined by DeLancey (1997).

The traditional view is that *only* presupposes the truth of the sentence without *only* (the prejacent) and asserts that all stronger alternatives to the prejacent are false. What exactly counts as a (stronger) alternative is subject to debate (cf. Greenberg 2022)

Following Zeevat (2009), the sentence including *only* in (51) expresses that the speaker held the expectation that a logically stronger alternative, i.e. that a larger group of people, containing Ronald, will do the shopping. This expectation is subsequently denied by the assertion of *only*, which says that no one but Ronald did the shopping. This gives rise to the mirative effect of *only*.

- (51) Context: *Things have changed in the Miller family.*  
 Today, only RONALD did the shopping. Umbach (2005) cited in Zeevat (2009)

In order to represent the expectation formally, Zeevat (2009) employs the notion of “weak presupposition”, a cancellable type of presupposition. He gives the semantics as in (52) for *only*, where  $\alpha$  stands for the predicate of the sentence (*shop*),  $c$  for the individual (*Ronald*). The operator *weak* introduces a weak presupposition that the predicate (*shop*) holds for a group which includes Ronald ( $c+x$ ).

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(52) *only* =  $\alpha(c)$ , *weak*( $x, \alpha(c+x)$ ):  $\forall x(x \not\subseteq c \rightarrow \neg \alpha(x))$  Zeevat (2009:232)

Applied to (51), (52) says that besides presupposing the prejacent, as in (53a) and asserting the negation of all salient alternatives as in (53c), *only* also introduces a weak presupposition ( $\approx$  expectation) that a stronger alternative is true, as in (53b).

- |      |    |  |                     |
|------|----|--|---------------------|
| (53) | a. | SHOP(Ronald)   | Presupposition      |
|      |    | $\approx$ it is presupposed that Ronald did the shopping                         |                     |
|      | b. | $\exists x \in C \ \& \text{SHOP}(\text{Ronald}+x)$                              | Weak presupposition |
|      |    | $\approx$ a stronger alternative is expected                                     |                     |
|      |    | e.g. <i>Ronald and Mark did the shopping</i>                                     |                     |
|      | c. | $\forall x \in C. x \not\subseteq \text{Ronald} \rightarrow \neg \text{SHOP}(x)$ | Assertion           |
|      |    | $\approx$ all alternatives disjoint from Ronald did not shop                     |                     |

Whereas Zeevat (2009) is interested in cases where an NP is in focus, Hill (2020) adapts Zeevat's analysis of *only* to the propositional *only* cases such as the one in (54). Following the mirative intuition, the idea is that given the first clause (*Sage is healthy*), the hearer expects Sage to have properties of a healthy person, and is surprised upon hearing the second clause (*Sage has high blood pressure*). Hill assumes that in the propositional cases the embedded clause is in focus. Hill (2020)'s formulation using structured propositions is given in (54), where the background is the property of being true and the focus is the proposition *Sage has high blood pressure*.

- (54) Sage is healthy, only [they have high blood pressure]<sub>F</sub>.  $\rightarrow \text{only} \langle \lambda q.q, B(s) \rangle$
- |    |   |                 |
|----|---|-----------------|
| a. | Given presupposition: $\lambda q.q(B(s)) = B(s)$                                    |                 |
| b. | Weak presupposition: $\exists x(B(s) < x \wedge \lambda q.q(x))$                    |                 |
| c. | Assertion: $\forall x \in C(x \not\subseteq B(s) \rightarrow \neg(\lambda q.q(x)))$ | (Hill, 2020:28) |

Again, *only* presupposes truth of its prejacent (*Sage has high blood pressure*) as in (54a). Crucially, in (54)  $<$  is an ordering of expectation. In (54b) it is weakly presupposed that a more expected alternative is true (e.g. *Sage is in good shape*). In (54c) all more expected alternatives are negated. As in the shopping example in (53), negation of the weak presupposition results in a denial of expectation, i.e. a mirative effect. In the next section I apply this mechanism to German *nur-um-zu* clauses, to derive the meaning of 'unexpected outcome'.

### 3.4. Proposal: A compositional account of German *nur-um-zu* clauses

Based on the previous discussion, I make the assumptions in (55): I assume that *nur* has a mirative meaning as in (55a) and that *um* expresses an outcome in the sense of Whelpton (2001). I further assume that it is possible for *nur* 'only' to have scope over the entire construction and that the complement clause of *um* constitutes the focus.

- (55) **Assumptions**
- |    |   |
|----|---|
| a. | <i>nur</i> has a mirative meaning<br>$\llbracket \text{nur} \rrbracket = \lambda p.p \ \& \ \text{weak}(\exists q.p <_{\text{exp}} q): \forall q [p <_{\text{exp}} q \rightarrow \neg q]$ |
| b. | <i>um</i> expresses an outcome<br>$\llbracket \text{um} \rrbracket = \lambda q.\lambda q. q \text{ is an outcome of } p \text{ (in the sense of Whelpton 2001)}$                          |
| c. | <i>nur</i> 'only' has propositional scope   |

- d. The complement clause of *um* is in focus

This gives us the LF in (56b) for the pasta salad sentence in (56a).

- (56) a. Hugo hat einen Nudelsalat gemacht, nur um ihn im Kühlschrank zu vergessen.  
           ‘Hugo made a pasta salad only to forget it in the fridge.’  
       b. NUR [ Hugo makes pasta salad [ UM [ PRO forget it in the fridge.]<sub>F</sub> ]]

The set of alternatives generated by (56b) and quantified over by *nur* ‘only’ will be as in (57). The set consists of sentences with the same main clause followed by different complements to *um*, i.e. different outcomes.

- (57)  $ALT_C = \lambda q$ . Hugo made pasta salad UM  $q$

An example of this set is given in (58), where the alternatives are ranked on a scale of how expected they are for the speaker in the given context.

- (58) **Alternatives *nur* ‘only’ quantifies over**
- |    |  |         |
|----|--|---------|
| a. | Hugo made pasta salad UM have it for lunch.      |         |
| b. | Hugo made pasta salad UM bring it to the party.  | ↑       |
| c. | Hugo made pasta salad UM post it on Instagram.   | expect. |
| d. | Hugo made pasta salad UM ...                     | ↓       |
| e. | Hugo made pasta salad UM forget it in the fridge |         |

By negating all alternatives on the scale ranked higher than (58e) we derive that only the least expected alternative outcome is true. In this way, interaction of *only* and *um* derives the meaning of ‘unexpected outcome’ expressed in the pasta salad sentence in (56a). The individual components are given in (59).

- (59) a. Presupposition:  $TRUE(p)$   
            $\approx$  Hugo forgot the salad  
       b. Weak presupposition:  $\exists q \in ALT_C \& q >_{exp} p \& q(w) = 1$   
            $\approx$  a more expected outcome is expected to be true  
       c. Assertion:  $\forall q \in ALT_C. q >_{exp} p \rightarrow q(w) = 0$   
            $\approx$  all stronger alternatives (more expected outcomes) are false

I have proposed to account for the meaning of ‘unexpected outcome’ found in Telic clauses with *nur* ‘only’ by assuming that *nur* has a mirative meaning and that *um* in the Telic case marks an outcome. I review certain short-comings of this analysis and open questions in the following sections.

## 4. Open Questions

### 4.1. Why is the Telic and the Rationale clause expressed by the same element across languages?

As we have seen in section 2.2 the Telic clause is generally expressed using the same morphology as the Rationale clause. Given their prima facie distinct meaning this is puzzling. Why is it the same element that is used for Rationale and Telic clauses? A speculation to be refined in future research is that the outcome meaning is actually at the core of both, as in (60a). In the Rationale clause it is modalized and related to the attitude of a salient individual *x* as in (60b).

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- (60)    a.     $p \text{ um } q \approx q \text{ is an outcome of } p$  TELIC  
           b.     $p \text{ um } q \approx p \text{ because } x \text{ wants that } q \text{ is an outcome of } p$  RATIONALE

A connective like *um* would express an outcome relation between two propositions, whereas the same *um* in the Rationale clause would express that this relation is some individual's goal and that this causes the main clause. Potential evidence comes from English where the connective *in order to* (Rationale) morphologically includes *to* (Telic). Note that, (60) would make the Telic clause the unmarked case, and the Rationale clause the special case, contrary to what one might think based on the usage.

### 4.2. The Telic clause is asserted not presupposed

The current account assumes that *nur* 'only' has propositional scope and presupposes its prejacent. Its prejacent is the entire construction. This is incompatible with the asserted status of the content of the Telic clause, which does not project from under modals like *möglich* 'possible', as in (4) or questions, as in (61). From neither (4) nor (61) it follows that Hugo made a pasta salad to forget it in the fridge.

- (61)    Hat Hugo einen Nudelsalat gemacht nur um ihn im    Kühlschrank zu vergessen?  
           has Hugo a    pasta.salad made    only UM it    in.the fridge    to forget  
           'Did Hugo make a pasta salad, only to forget it in the fridge?'

### 4.3. Do Telic clauses with *only* exclude alternative outcomes?

von Fintel and Iatridou (2019) note that adversative *only*, in contrast to other adversative expressions like *but*, has an exclusivity inference (but see Davis and Winterstein 2022, who dispute this claim and a response in Benbaji and Doron 2023). This is shown in the contrast below:

- (62)    a.    Bill is nice, only he talks too much...    ??Furthermore, he gets impatient quickly.  
           b.    Bill is nice, but he talks too much...    Furthermore, he gets impatient quickly.

Whelpton (2001) claims that this exclusivity is not present in the English Telic clauses. The sole contribution of *only* is to bring out the adversative reading of the Telic clause. This predicts a possible continuation as in (63) to be possible.

- (63)    Bill made a pasta salad, only to forget it in the fridge... Furthermore he let it rot there.

But if adversative *only* indeed has an exclusivity inference and is the one involved in the Telic clause, we should expect (63) to be bad, as it would negate all other outcomes. The account presented above predicts that all more expected alternative outcomes are negated, but less expected outcomes are not. This predicts an asymmetry to be possible, where a continuation with an even less expected outcomes is possible, but a more expected outcome is not.

### 4.4. What is in the scope of *only*?

Following the proposed account *only* moves to get scope over the entire construction. This predicts the Telic reading to be available when *nur* 'only' has a surface position inside the main

clause.

- (64) Hugo hat nur einen Nudelsalat gemacht, um ihn im Kühlschrank zu vergessen.  
Hugo has only a pasta-salad made UM it in.the fridge to forget.  
'Hugo made only a pasta salad, to forget it in the fridge.'

However, there is speaker variation as to availability of the Telic reading in (64). Additionally, intonational factors must be controlled for in testing for this reading.

#### 4.5. Unexpected or lowly outcome?

Examples like (65), seem to challenge the view that the Telic clause expresses an unexpected outcome.

- (65) #Hugo hat gestern Lotto gespielt, nur um 10 Millionen zu gewinnen.  
'Hugo played the lottery only to win 10 million.'

One might think that (65) is ruled out because what is expressed by the nur-um clause must be a "lowly" or undesirable outcome. It seems that this is not necessarily true, (66) is a naturally occurring example where it must be assumed that the outcome is not a lowly one.

- (66) ... und fragen uns wie wir das denn jemals bewältigen sollen nur um  
and ask ourselves how we that PART ever manage should only UM  
schon nach wenigen Minuten zu merken wozu wir mit etwas Übung dann  
already after few minutes to realize to-what we with some practice then  
doch in der Lage sind.  
DOCH capable are  
... and ask ourselves how we are ever supposed to manage, only to realize after just a  
few minutes what we are capable of with a bit of practice.

Similarly the constructed example in (67a) suggests that globally positive outcomes are okay. Arguably, it is a welcome outcome to find that the stove was off. A common intuition is that what is expressed is often an "effort in vain".

- (67) Context: *Hugo, a neurotic, is on his way to work and suddenly wonders whether he left the stove on when he left in a hurry. He turns around and runs back in a panic...*  
a. Hugo öffnet die Tür seiner Wohnung und rennt panisch in die Küche, nur um festzustellen, dass der Herd die ganze Zeit aus gewesen war.  
'Hugo opens the door of his apartment and runs into the kitchen in a panic, only to discover that the stove had been turned off the entire time.'

Moreover, in (67) it seems that the surprisal is relativized to Hugo, but inanimate cases as in (37) show that this is not necessary. The question what exactly determines the attitude holder of the attitude towards the outcome expressed in the telic clause is left for future research.

## References

Beaver, D. L. and B. Z. Clark (2008). *Sense and Sensitivity*. Malden, Mass.: John Wiley & Sons.



- Benbaji, I. and O. Doron (2023, Nov.). Adversative 'only' is only 'only'. *Proceedings of Sinn und Bedeutung* 27, 64–80.
- Davis, C. and G. Winterstein (2022). From exclusive particles to adversative connectives. 52, 211–220.
- DeLancey, S. (1997). *Mirativity: The grammatical marking of unexpected information*. Berlin: Walter de Gruyter.
- Farkas, D. F. (1988). On obligatory control. *Linguistics and Philosophy* 11(1), 27–58.
- Frühau, F. (2024). *Rationale Clauses and Related Constructions in German*. Ph. D. thesis, University of Konstanz.
- Green, J. (2018). *Adjunct control: Syntax and processing*. Ph. D. thesis, University of Maryland.
- Green, J. (2019). A movement theory of adjunct control. *Glossa: A Journal of general linguistics* 4(1).
- Greenberg, Y. (2022). On the scalar antonymy of *only* and *even*. *Natural Language Semantics* 30(4), 415–452.
- Grosz, P. (2012). The Grammar of the Optative Construction. *Linguistik Aktuell* 193(9), 1689–1699.
- Hill, A. (2020). *The Only thesis*. Master's thesis, ILLC Amsterdam.
- Huettner, A. (1989). *Adjunct infinitives in English*. Ph. D. thesis, University of Massachusetts Amherst.
- Jespersen, O. (1949). *A modern English grammar on historical principles*, Volume 7, syntax. London: George Allen & Unwin.
- Jędrzejowski, (2022). Zu Entstehungsumständen von mirativen *um-zu*-Sätzen im Deutschen. In C. Gianollo, Jędrzejowski, and S. I. Lindemann (Eds.), *Paths through meaning and form: Festschrift offered to Klaus von Heusinger on the occasion of his 60th birthday*, pp. 134–137. Universität zu Köln.
- Klinedinst, N. (2004). *Scales and only*. Master's thesis, UCLA.
- Landau, I. (2021). *A selectional theory of adjunct control*. MIT Press.
- Leys, O. (1991). Skizze einer kognitiv-semantischen typologie der deutschen 'um'-infinitive. *Leuvense Bijdragen* 80, 167 – 203.
- Pauly, D. (2013). *Grenzfälle der Subordination: Merkmale, Empirie und Theorie abhängiger Nebensätze*. Ph. D. thesis, Universität Potsdam.
- Pittner, K. (2013). 23 *Adverbialsätze*, pp. 501–525. Berlin, Boston: De Gruyter.
- Umbach, C. (2005). Contrast and information structure: A focus-based analysis of *but*. *Linguistics* 43, 207 – 232.
- von Fintel, K. and S. Iatridou (2019). The only connectives. URL: <http://kvf.me/only>.
- Whelpton, M. (1995). *The syntax and semantics of infinitives of result in English*. Ph. D. thesis, University of Oxford.
- Whelpton, M. (2001). Elucidation of a telic infinitive. *Journal of Linguistics* 37(2), 313–337.
- Zeevat, H. (2009). 'Only' as a mirative particle. In A. Riester and E. Onea (Eds.), *Focus at the syntax-semantics interface*, Volume 3 of *Working Papers of the SFB 732*, pp. 121 – 141. University of Stuttgart Press.