

# Why in Dutch? On *why*-Stripping and high and low adverbials.

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## 1. Introduction

Just like English *why* (DeVilliers 1991, 1996), the Dutch question word *waarom* can occur in the surface pattern *Waarom XP?* ('why XP?'):

(1) A: *Zij zal Obama interviewen.*

she will Obama interview

'She will interview Obama.'

B: *Waarom Obama?*

why Obama

'Why Obama?' ('Why will she interview Obama?')

Like English again (DeVilliers 1991, 1996), Dutch typically displays this pattern with the interrogative reason adverb *waarom*. It is less felicitous with other kinds of interrogative adverbs such as manner *hoe* 'how', temporal *wanneer* 'when', and locative *waar* 'where'.<sup>1</sup>

(2) A: *Zij zal Obama vriendelijk aankijken.*

she will Obama friendly look.at

'She will look at Obama in a friendly way.'

B: *\*Hoe Merkel?*

how Merkel

'How will she look at Merkel?'

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<sup>1</sup> For certain Dutch speakers, examples such as (2)-(4) get better when they are introduced by the coordinating conjunction *en* 'and'. We will briefly come back to this in Section 7.

(3) A: *Zij zal morgen Obama interviewen.*

she will tomorrow Obama interview

‘Tomorrow, she will interview Obama.’

B: *\*Wanneer Merkel?*

when Merkel

‘When will she interview Merkel?’

(4) A: *Zij zal in Chicago Obama interviewen.*

she will in Chicago Obama interview

‘She will interview Obama in Chicago.’

B: *\*Waar Merkel?*

where Merkel

‘Where will she interview Merkel?’

The question, obviously, arises as to what underlies the asymmetry between (1), on the one hand, and (2)-(4), on the other hand. Another question that should be raised concerns the structural representation of the Dutch sequence *Waarom XP?*. What does it look like? These and other questions will be addressed in the course of this chapter, which has the following organization. Section 2 addresses the question regarding the nature of the XP-part. It will be proposed that XP is a focalized constituent. In Section 3, it will be shown that the focalized XP ends up in the left periphery of the clause as a result of displacement. Section 4 provides an analysis of the contrast between (1) versus (2), that is, *Waarom XP?* versus *\*Hoe XP?*. In section 5, it will be shown that, besides the well-formed *Waarom XP?*-pattern, there are also *WH<sub>reason</sub>+XP?*-patterns that are ill-formed. The question will be addressed as to what underlies this asymmetry. It will be argued that a crucial factor underlying this asymmetry is the structural prominence of the reason adverbial in the clause; that is, a distinction needs to be made between high (clausal) and low (VP) reason adverbials. It will be shown that the lower ones cannot be part of the *WH<sub>reason</sub>+XP?*-template. Section 6 discusses some further properties of low and high reason adverbials. Section 7 presents an analysis of the spatio-temporal patterns *Wanneer XP?* (3) and *Waar XP?* (4). I will propose that also for these adverbials a distinction should be made between high (i.e. clausal) adverbials and low (i.e. VP-) adverbials. It will be shown that, in certain discourse contexts, patterns such as *Wanneer/Waar XP?* are actually possible. Section 8 provides a brief description of other surface manifestations of the *Waarom XP?*-pattern, both interrogative and non-interrogative ones. Section 9 concludes this chapter.

## 2. Some observations about the XP-part

This section examines the linguistic nature of the XP-component in the Dutch *Waarom XP?*-pattern. First of all, it should be noted that XP can be of any phrasal type:

- (5) a. A: *Ik heb Jan uitgenodigd.*  
I have Jan invited  
B: *Waarom [DP Jan]?*  
why Jan
- b. A: *Jan dook naakt het zwembad in.*  
Jan dived naked the swimming.pool into  
B: *Waarom [AP naakt]?*  
why naked
- c. A: *Je moet de vis langzaam omdraaien.*  
you must the fish slowly turn.around  
B: *Waarom [AP langzaam]?*  
why slowly
- d. A: *Jan gaat werken in Peoria.*  
Jan goes work in Peoria  
B: *Waarom [PP in Peoria]?*  
why in Peoria
- e. A: *Jan deed mee [CP dat hij ging verhuizen].*  
Jan announced PRT that he would move.house  
B: *Waarom (alleen) [CP dat hij ging verhuizen]?*  
why (only) that he would move.house
- f. A: *Jan heeft zojuist getennist.*  
Jan has just played-tennis  
B: *Waarom [VP getennist] (en niet gevoetbald)?*  
why played-tennis (and not played-soccer)

XP has the following values in (5): DP (5a), AP (5b), adverbial AP (5c), PP (5d), CP (5e), and VP (5f).

Secondly, the element that follows *waarom* must be a phrase; it cannot be a head (e.g. a finite verb).

(6) A: *Jan kookt morgen de vis in witte wijn.*

Jan boils tomorrow the fish in white wine

B: *Waarom [AdvP morgen]/[DP de vis]/[PP in witte wijn]?*

why tomorrow / the fish / in white wine

B: \**Waarom [V<sub>fin</sub> kookt] (en niet bakt)?*

\**waarom* + V<sub>fin</sub>

why boils (and not bakes)

As (6) shows, phrasal constituents such as *morgen*, *de vis* and *in witte wijn* can occur after *waarom*. However, the finite verb *kookt*, which typically occurs in C° in Dutch main clauses — the so-called Verb Second phenomenon; see Koster (1975)— cannot.

Sometimes it appears as if a verbal head (V°) follows *waarom*, as in (7B), where the infinitival verb *koken* follows *waarom*:

(7) A: *Jan wil de vis morgen in witte wijn koken.*

Jan wants the fish tomorrow in white wine cook

B: *Waarom koken (en niet bakken)?*

why cook (and not bake)

Upon closer inspection, however, *koken* constitutes a phrasal constituent, namely a VP consisting of a direct object trace and a verb. The trace results from scrambling of the direct object DP *de vis* to a position in the clausal middle field, as depicted in (8A). Under the assumption that XP in the *Waarom XP?*-pattern is a displaced constituent, *koken* in (7B) has undergone remnant-movement (Den Besten and Webelhuth 1987); that is, movement of a phrase that contains the trace of an extracted constituent (*in casu* the scrambled object DP *de vis*):

(8) A: *Jan wil [DP de vis]<sub>i</sub> morgen in witte wijn [VP t<sub>i</sub> koken].*

Jan wants the fish tomorrow in white wine cook

B: *Waarom [VP t<sub>i</sub> koken] (en niet bakken)?*

why cook (and not bake)

A third property of the XP-component in the *Waarom* XP-pattern is the fact that XP bears phonological stress. Unstressed XPs, which have a D(iscourse)-linked interpretation, cannot follow *waarom*. This is exemplified in (9) and (10), where words written with small capitals carry phonological stress:

(9) A: *We hebben Jan uitgenodigd.*

we have Jan invited

B: *Waarom JAN/DIE/HEM?*

why Jan/that.one/him

B': *Waarom ?\*[DP de etter] / \*'m<sub>weak</sub>?*

why the jerk / him

(10) A: *Jan gaat werken in Peoria.*

Jan goes work in Peoria

B: *Waarom [PP in PEORIA] / [PP DAAR<sub>strong</sub> ]?*

why in Peoria / there

B': *\*Waarom [PP er<sub>weak</sub> ]?*

why there

(9B) shows that phonologically strong (pro)nominal expressions can occur after *waarom*. As shown by (9B'), however, phonologically weak (pro)nominal expressions cannot occur in combination with *waarom*. In (10), we find the same contrast with locative expressions.

The contrast depicted in (9)-(10) suggests that the XP forms a focalized constituent. It is not unexpected then that XP can be accompanied by focus particles such as *alleen* 'only', *ook* 'also', and *zelfs* 'even'. This fourth characteristic of XP is illustrated in (11)-(12):

(11) A: *Ze heeft Jan uitgenodigd.*

she has Jan invited

B: *Waarom [alleen JAN]?*

why only Jan

- (12) A: *Ze heeft Jan en Piet uitgenodigd.*  
 she has Jan and Piet invited
- B: *JAN begrijp ik, maar waarom [ook PIET]?*  
 Jan understand I but why also Piet  
 ‘Jan I understand, but why also Piet?’

As an interim conclusion, it can be stated that the *Waarom XP?*-pattern can be represented as: *Waarom XP<sub>focus</sub>?*. More precisely, the focalized XP represents contrastive focus: there is some kind of contrast between XP and an alternative piece of information. This alternative can be explicitly presented (13B) or presupposed (13B’):

- (13) A: *De commissie heeft Jan als voorzitter uitgekozen.*  
 the committee has Jan as chairman elected
- B: *Waarom JAN, en niet PIET?*  
 why Jan and not Piet
- B:’ *Waarom JAN?*  
 why Jan

A fifth property of the XP-component in the *Waarom XP*-pattern regards the number of focalized constituents that is permitted after *waarom*. In a discourse context in which the *Waarom XP?*-pattern is preceded by an all-focus sentence, the *Waarom XP?*-pattern typically contains a single instance of XP (14B). Thus, a pattern like *Waarom XP YP?* is excluded. This is shown in (14C-C’):

- (14) A: *Enkele studenten lieten [DP Jan] [AdvP gisteren] [AP naakt] [PP door een bos] fietsen.*  
 some studentes let Jan yesterday naked through a forest cycle  
 ‘Yesterday, some students let John bike through a forest naked.’
- B: *Waarom [Jan] / [gisteren] / [naakt] / [door een bos]?*  
 why Jan yesterday naked through a forest
- C: *\*Waarom [Jan] [gisteren]?*  
 why Jan yesterday
- C’: *\*Waarom [Jan] [naakt]?*
- C’’: *\*Waarom [Jan] [door een bos]?*
- C’’’: *\*Waarom [gisteren] [naakt]?*

In discourse contexts in which the preceding clause provides contrastive pairs, the *Waarom XP?*-pattern can contain two focalized phrases; that is: *Waarom XP YP?* This is exemplified in (15):

(15) A: *Ze lieten [JAN] [door de STAD] fietsen en [PIET] [door een BOS].*

they let Jan through the city cycle and Piet through a forest  
'They let Jan bike through the city and Piet through a forest.'

B: *Waarom [JAN] [door de STAD] en [PIET] [door een BOS]?*

why Jan through the city and Piet through a forest  
'Why did they let Jan bike through the city and Piet through the forest?'

In (15A), the pair {*Jan, door de stad*} is contrasted with {*Piet, door een bos*}. Each member of the contrastive pairs carries phonological stress.

In addition to having a contrastive meaning, the *Waarom XP?*-pattern also has a sense of surprise.<sup>2</sup> In (13B), for example, person B is surprised by the fact that the committee elected Jan and not Piet as chairman. Thus, *Jan* is unexpected information for person B. Given this surprise meaning component of XP, it is predicted that the expression *Waarom XP?* is infelicitous in discourse contexts in which XP is not unexpected. This is exemplified in (16):

(16) A: *Van Gogh sneed zijn linker oor af.*

Van Gogh cut his left ear off

B: *#Waarom Van Gogh?*

why Van Gogh

B': *Waarom zijn linker oor (en niet zijn rechter oor)?*

why his left ear (and not his right ear)

(16A) represents the well-known information that the painter Van Gogh cut off his ear. It belongs to the *common knowledge* of person A and person B. The fact that he cut off his left ear may be less well-known (more unexpected) and may trigger the question why he cut off his left ear and not his right ear.

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<sup>2</sup> See Van Craenenbroeck (2010) for the observation that so-called SPD-patterns (Sluicing Plus Demonstrative) have a surprise reading.

### 3. Focus and displacement

Having discussed some basic properties of the *Waarom XP?*-pattern, I will now address the following question: What is the syntactic structure that corresponds to this string? Specifically, is *waarom XP?* a clausal structure — $[_{Clause} \textit{waarom XP}]$ — or a non-clausal one — $[_{XP} \textit{waarom XP}]$ ? For example, does *Waarom Jan?* in (5a) have a structure like  $[_{Clause} \textit{waarom Jan } \beta]$ , where  $\beta$  represents elided material, or a structure like  $[_{DP} \textit{waarom DP}]$ , where *waarom* is an interrogative modifier directly attached (i.e., adjoined) to the focalized XP?

Under the clausal analysis, it is predicted that *waarom XP?* has the syntactic distribution of a clause; under the non-clausal (i.e., XP) analysis, *waarom XP?* should display the distributional behavior of XP. Now it turns out that the pattern has the distribution of a clause. A good diagnostic for clausal behavior is the possibility of occurring in postverbal position. In Dutch, noun phrases and adjective phrases cannot appear in postverbal position, clauses can.<sup>3</sup> This contrast is exemplified in (17), where the particle *af*, which is stranded as a result of Verb Second (i.e., movement of the finite verb to C<sup>0</sup>) in the main clause, marks the base position of the verb (Koster 1975).<sup>4</sup>

- (17) a. *Ik vroeg me <\*waarom Jan vertrokken was> af <waarom Jan vertrokken was>.*  
I wondered REFL <why Jan left was> PRT <why Jan left was>  
'I wondered why Jan had left.'
- b. *Ik vroeg me dat <plotseling> af <\*plotseling>.*  
I wondered REFL that <suddenly> PRT <suddenly>  
'Suddenly, I asked myself that question.'

(17a) shows that the clause introduced by *waarom* must occur in postverbal position; that is, in a position following the particle *af*, which belongs to the displaced verb *vraag*. (17b) shows that postverbal placement of the adverbial AP *plotseling* yields an ill-formed sentence.<sup>5</sup>

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<sup>3</sup> In Dutch, PPs can also occur in post- and preverbal position (Koster 1974).

<sup>4</sup> '< $\alpha_2$ > ... < $\alpha_1$ >' designates that  $\alpha$  occupies either syntactic position  $\alpha_1$  or syntactic position  $\alpha_2$ .

<sup>5</sup> The *waarom XP*-pattern also occurs embedded within a noun phrase that is (semantically) headed by the noun *vraag* 'question':

- (i)  $[_{DP} \textit{De vraag} \quad [_{\textit{waarom Obama}}]] \textit{ werd niet gesteld.}$   
the question why Obama was not raised



Consider now the mini-discourse in (18):

(18) A: *Jan is vertrokken!*

Jan has left

B: *Ik hoorde het. Ik vraag me af [waarom [AP zoPLOTSELING]].*

I heard it. I wonder REFL PRT why so suddenly

‘I heard about it. But why so suddenly?’

Notice that the string *waarom zo plotseling* in speaker B's reply occurs in postverbal position. If the string were an AP, one would expect the sentence *Ik vraag me af waarom zo plotseling* to be ill-formed; compare (17b). But it is not. Its well-formedness suggests that the string *waarom zo plotseling* represents a full (interrogative) clause (CP). Notice, by the way, that this shows that the *waarom XP*-pattern does not only occur as a main clause, as for example in (5), but also as an embedded clause; see also example (i) of note 5.

A second reason for adopting a clausal analysis of *Waarom XP?* comes from the occurrence of sentence adverbs and discourse particles that typically occur in clausal contexts. As shown in (19), these elements can occur in a position in between *waarom* and the focalized XP (19B) or in a position following the focalized XP (19B'):

(19) A: *Zij zal Obama interviewen.*

she will Obama interview

B: *Waarom {toch / nou / weer / trouwens / ...} OBAMA?*

why {yet / PRT<sub>int</sub> / again / by.the.way / ...} Obama

B': *Waarom OBAMA {toch / nou / weer / trouwens / ...}?*

If *waarom XP?* is a clausal pattern, then part of the clause has been deleted, as in Sluicing (Merchant 2001) and fragment answers (Temmerman 2013)

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‘The question why she will interview Obama was not raised.’

Since the noun *vraag* can combine with a CP but not with a bare (i.e., P-less) DP, an example like (i) provides further evidence in support of the clausal status of the string *waarom Obama*. In (i) the string constitutes an indirect question: [<sub>DP</sub> *De vraag* [<sub>CP</sub> *waarom Obama*]].

(20) A: *Zij heeft Jan uitgenodigd.*

she has Jan invited

‘She invited Jan.’

B: [<sub>CP</sub> *Waarom* [<sub>C</sub> *C* [<sub>TP</sub> ~~*zij Jan uitgenodigd heeft*~~]]]? (Sluicing)

why she Jan invited has

‘Why?’ (that is, ‘Why did she do that?’)

(21) A: *Wie heeft zij uitgenodigd?*

who has she invited

‘Who did she invite?’

B: [<sub>CP</sub> *JAN* [<sub>C</sub> *C* [<sub>TP</sub> ~~*zij t<sub>i</sub> uitgenodigd heeft*~~]]]. (Fragment Answer)

Jan

‘Jan.’ (that is, ‘She invited Jan.’)

In the spirit of Sluicing/Fragment Answer analyses, and in line with Yoshida *et al*'s (2015) and Weir's (2013) analyses of so-called *Why*-Stripping, I assume that the overt XP-remnant has been shifted to a high position in the clause before deletion of the lower clausal part takes place.<sup>6</sup> For example, the string *Waarom Jan?* in (5a), repeated here as (22), has the clausal representation in (23).

(22) A: *Zij heeft Jan uitgenodigd.*

she has Jan invited

B: *Waarom JAN?*

why Jan

(23) [<sub>CP</sub> *Waarom* [<sub>C</sub> *C* [<sub>FocP</sub> *JAN<sub>i</sub>* [<sub>Foc'</sub> *Foc* [<sub>TP</sub> ~~*zij t<sub>i</sub> uitgenodigd heeft*~~]]]]]?]

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<sup>6</sup> For the sake of discussion, I assume here that *waarom* ‘why’ is base-generated in [Spec,CP]. In Section 4, I will adopt Soare and Shlonsky's (2011) analysis according to which *why* undergoes movement from a clause-adverbial position (namely, the specifier position of ReasonP(hrase)) to the left periphery of the clause. For analyses that take *why* to be base-generated (that is, E(xternally)-Merged) in the left periphery of the clause, see among others Hornstein (1995), Ko (2005), Rizzi (1990, 2001), Stepanov and Tsai (2008), and Thornton (2008).

As indicated in (23), I propose that the focalized DP *Jan* undergoes leftward movement to the specifier position of a Focus-projection (FocP). FocP is located below CP, which contains the interrogative reason adverbial *waarom*.<sup>7</sup>

I take the leftward Focus movement operation in (23) to be an A-bar movement operation. Evidence in support of (A-bar) movement comes from (i) island effects, (ii) reconstruction effects, and (iii) parasitic gap licensing. Let's first consider island effects. As shown in (24), extraction from a subject noun phrase is impossible in Dutch: the PP *over honden* cannot be moved out of the subject noun phrase. Notice now the ill-formedness of (25B), where *over honden* corresponds to a subpart of the subject noun phrase in (25A). If *over honden* is a displaced phrase, the ill-formedness of (25B) follows directly: the Subject island constraint is violated (Chomsky 1973, 1986). As shown by (25B'), the string *Waarom XP?* is fine when XP corresponds to the entire subject: *die over honden*.

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<sup>7</sup> The question could be raised as to whether the *Waarom XP?*-pattern is an underlying cleft construction. Under such an approach, *Waarom Jan?* in (22B) would be derived from a structure corresponding to *Waarom is het Jan die zij heeft uitgenodigd?* (Litt.: why is it Jan who she has invited); see (i) for a more specific structure which represents the stripping operation:

(i) [<sub>CP</sub> *Waarom* [<sub>FocP</sub> *JAN*<sub>i</sub> [<sub>Foc'</sub> *Foc* ~~het t<sub>i</sub> is~~ [<sub>CP</sub> ~~die zij t<sub>i</sub> heeft uitgenodigd~~]]]]]

I will not adopt an underlying cleft analysis because the XP of the *Waarom XP?*-pattern can be a phrase that cannot occur as a focalized constituent in a cleft construction: specifically, an AP and a postpositional (directional) PP. Compare the clefts in (i) with the *Waarom XP?*-patterns in (ii).

- (i) a. \**Het is* [<sub>AP</sub> *LANGZAAM*] *dat Jan de vis omdraaide.*  
 It is slowly that Jan the fish turned.around  
 b. \**Het was* [<sub>PP</sub> *DE BOOM in*] *dat Jan klom.*  
 it was thetree into that Jan climbed

- (ii) a. A: *Je moet de vis* [<sub>AP</sub> *LANGZAAM*] *omdraaien.*  
 you must the fish slowly turn.around  
 B: *Waarom* [<sub>AP</sub> *LANGZAAM*]?  
 why slowly  
 b. A: *Jan klom* [<sub>PP</sub> *DE BOOM in*].  
 Jan climbed the tree into  
 B: *Waarom* [<sub>PP</sub> *DE BOOM in*]?  
 why the tree into  
 'Why into the tree?'

(24) \* $[_{PP} \textit{Over HONDEN}]_i$  heeft  $[_{DP} \textit{die laatste documentaire } t_i]$  me erg aangegepen.  
 about dogs has that last documentary me much agitated  
 ‘That documentary about dogs agitated me much.’

(25) A:  $[_{DP} \textit{Die documentaire over honden}]$  heeft mij erg aangegepen.  
 that documentary about dogs has me much agitated

B: \**Waarom*  $[_{over HONDEN}]?$  (XP = part of subject)  
 why about dogs

B': *Waarom*  $[_{DP} \textit{die over HONDEN}]?$  (XP = subject)  
 why the.one about dogs

A second illustration of an island effect comes from left branch extraction. As shown in (26), the left branch (doubling) possessor *Marie* cannot be moved out of the direct object noun phrase. (26) violates Ross's (1967) Left Branch Condition (LBC; see also Corver 1990). Consider next the ill-formed pattern (27B), where the possessor *Marie* represents the XP in the *Waarom XP?*-pattern. Its ill-formedness is accounted for by an analysis which takes *Marie* to be a displaced constituent. Under such an analysis, (27B) is ruled out because of a violation of the LBC. As indicated by (27B'), it is possible to have the entire direct object noun phrase after *waarom*. In that case, the entire direct object is displaced and no island constraint is violated.

(26) \* $[_{MARIE}]_i$  heb ik  $[_{DP} t_i [_{D'} \textit{d'r broer}]]$  uitgenodigd. (LBC)  
 Marie have I her brother invited  
 ‘I invited Marie's brother.’

(27) A: *Ik heb*  $[_{Marie \textit{d'r broer}}]$  uitgenodigd.  
 I have Marie her brother invited  
 ‘I invited Marie's brother.’

B: \**Waarom* *MARIE*? XP = left branch possessor  
 why Marie

B': *Waarom*  $[_{DP} \textit{die van MARIE}]?$  XP = entire direct object  
 why that of Marie  
 ‘Why Marie's (brother)?’

A final illustration of an island effect is given in (28), where it is shown that the adjectival modifier *hoe diep* can be extracted out of a complement-PP (28a) but not out of an adjunct-PP (28b). Thus, (28b) violates the Adjunct condition (Cattell 1976, Chomsky 1986, Corver 1990).

- (28) a. [<sub>DegP</sub> *Hoe diep*]<sub>i</sub> *lag de schat* [<sub>PP</sub> *ti onder de grond*]?  
 how deep lay the treasure under the ground  
 ‘How deep under the ground did the treasure lie?’
- b. \* [<sub>DegP</sub> *Hoe diep*]<sub>i</sub> *ontdekte hij de schat* [<sub>PP</sub> *ti onder de grond*]?  
 how deep discovered he the treasure under the ground  
 ‘How deep under the ground did he discover the treasure?’

Notice now that we find exactly the same contrast in (29B) and (30B), where *zo diep* is interpreted, respectively, as a modifier of a complement-PP and a modifier of an adjunct-PP. The ungrammaticality of (30B) follows from an analysis that takes the adjectival modifier *zo diep* to be extracted from an adjunct-PP.

- (29) A: *De schat lag* [<sub>PP</sub> *diep onder de grond*].  
 the treasure lay deep under the ground  
 B: *Waarom* [<sub>DegP</sub> *zo DIEP*]?  
 why so deep
- (30) A: *Hij ontdekte de schat* [*diep onder de grond*].  
 he discovered the treasure deep under the ground  
 B: \**Waarom* [<sub>DegP</sub> *zo DIEP*]?  
 why so deep

So far, it has been shown on the basis of island behavior that XP in *Waarom XP?* is a displaced constituent. The type of displacement can be characterized as A-bar movement. Evidence in support of this characterization comes from Reconstruction and parasitic gap licensing. Both phenomena have been argued to involve A-bar movement.

Let's first consider Reconstruction. As shown in (31), the reflexive pronoun *zichzelf* can instantiate XP in the *Waarom XP?*-pattern. The pronoun is interpreted as being coreferential with *Jan*. Thus, *waarom zichzelf* is interpreted as ‘Why does Jan admire himself (and not somebody else)?’. In (32), *zijn linkerschoen* realizes XP. The possessive pronoun *zijn* receives

a bound interpretation. That is, *waarom zijn linkerschoen* receives the interpretation ‘Why is it the case that for every pupil x, x had to take off x's left shoe?’.

(31) A: *Jan<sub>i</sub> bewondert zichzelf<sub>i</sub>*

Jan admired himself

B: *Waarom ZICHZELF?*

why himself

(32) A: *[Iedere leerling]<sub>i</sub> moest zijn<sub>i</sub> linkerschoen uittrekken.*

every pupil had.to his left.shoe take.off

B: *Waarom ZIJN LINKERSCHOEN?*

why his left.shoe

The interpretive dependency between (i) *Jan* and *zichzelf*, and (ii) *iedere leerling* and *zijn* follows immediately from an analysis in which XP is A-bar moved in narrow syntax and interpreted in its base position via Reconstruction. Under the copy theory of movement (Chomsky 1993; Corver and Nunes 2007), this reconstructed interpretation is made possible by the copy (in boldface) in the base position. Schematically, where strikethrough marks the unpronounced part of the clause:

(33) a. *[<sub>CP</sub> Waarom [<sub>C'</sub> C [<sub>FocP</sub> ZICHZELF [<sub>Foc'</sub> Foc ~~{<sub>TP</sub> Jan<sub>i</sub> ZICHZELF bewondert}~~]}]]]]?*

b. *[<sub>CP</sub> Waarom [<sub>C'</sub> C [<sub>FocP</sub> ZIJN LINKERSCHOEN<sub>i</sub> [<sub>Foc'</sub> Foc ~~{<sub>TP</sub> [iedere leerling] ZIJN LINKERSCHOEN uittrekken moest}~~]}]]]]?*

Let's next consider parasitic gap licensing, which has been shown to exist in a language like Dutch (Bennis and Hoekstra 1984; Koster 1987). As shown in (34), the A-bar-moved noun phrase *de paprika's* is interpreted in the main clause in the position occupied by the wh-trace/copy (*t<sub>i</sub>*), and in the embedded clause in the position occupied by *pg* (parasitic gap):

(34) *De paprika's<sub>i</sub> heeft Jan [na/zonder [PRO pg te hebben gewassen]]*  
 the paprikas has Jan after/without to have washed

*in de pan t<sub>i</sub> gegooïd.*

in the pan thrown

'The paprikas Jan threw into the pan [after/without having washed them].'

Consider now the following example in which the *XP* element of the *Waarom XP?*-pattern consists of a coordinate structure, namely: *[[clause NP [adjunct clause ..pg..]] en [clause NP [adjunct clause ..pg..]]]*. As indicated, the prepositions introducing the adjunct clauses (*na*, *zonder*) are pronounced with contrastive accent, just like *de gele paprikas* and *de rode paprikas*.<sup>8</sup>

(35) A: *Jan heeft de paprika's in de pan gegooïd.*

Jan has the paprikas in the pan thrown

'Jan has just thrown the paprikas in the pan.'

B: *Ik weet het, maar waarom ...*

I know it, but why

*DE GELE PAPRIKA'S [NA PRO pg te hebben gewassen]*

the yellow paprikas after to have washed

*en DE RODE PAPRIKA'S [ZONDER PRO pg te hebben gewassen]*

and the red paprikas without to have washed

'I know, but why did he throw the yéllow parikas in the pan áfter having washed them, and why did he throw the réd ones in the pan withóút having washed them.'

Summarizing, I have shown in this section that the *Waarom XP?*-pattern involves A-bar movement of a focalized phrase (XP).

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<sup>8</sup> Note that (35) instantiates the pattern *Waarom XP YP?*, with *XP* being the direct object noun phrase (*de gele paprika's*, *de rode paprika's*) and *YP* being the adjunct-PP (*na te hebben gewassen*, *zonder te hebben gewassen*).

#### 4. Towards an analysis of *Waarom XP?* versus *\*Hoe XP?*

Having shown that XP undergoes A-bar movement to [Spec,FocP], we can now address the question as to why the pattern *waarom XP?* is well-formed but the pattern *hoe/waar/wanneer XP?* is not. In this section, I will first give an analysis of the contrast between the well-formed pattern *waarom XP?* (36) and the ill-formed pattern *hoe XP?* (37). This contrast will be related to the syntactic positions of the two types of adverbials in the hierarchical organization of the clause: *hoe* (manner, ‘how’) originates as a VP-adverbial and consequently occupies a relatively low position; *waarom* (reason, ‘why’), on the contrary, originates as a clause-adverbial and consequently occupies a relatively high position in the clausal structure. Importantly, it will be shown in section 5 that certain reason adverbials start out as VP-adverbials. Importantly, those reason adverbials are *nó*t permitted in the *Waarom XP?*-pattern. Section 7, finally, will examine the behavior of the temporal adverbial *wanneer* ‘when’ and the locational adverbial *waar* ‘where’. Also with these adverbials, their status as VP-modifier or clausal modifier seems to matter for their occurrence in the *wanneer/waar XP?*-template.

Let's now start our discussion with the contrast between the well-formed pattern *waarom XP?* (36) and the ill-formed pattern *hoe XP?* (37):<sup>9</sup>

(36) A: *Zij zal Obama interviewen.* (= (1))

she will Obama interview

B: *Waarom Obama?*

why Obama

(37) A: *Zij zal Obama vriendelijk aankijken.* (= (2))

she will Obama friendly look.at

B: *\*Hoe Merkel?*

how Merkel

‘How will she look at Merkel?’

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<sup>9</sup> A reviewer asks if the non-elliptical version of (36a) —that is, *Waarom zal zij Obama interviewen?*— is permitted as a reaction to (36B). The use of the non-elliptical sentence sounds a bit strange to my ear. I prefer the use of *zou* ‘would’ in this particular context: *Waarom zou zij Obama interviewen?* I presume this relates to pragmatic factors related to the modal interpretation of the verb *zullen* (see Broekhuis and Corver 2015:138-150). Notice, by the way, that both the elliptical pattern and the non-elliptical one are perfectly fine when we have *gaat* (‘goes’, with future interpretation ‘will’) instead of *zal*. Thus, both *Waarom Obama?* and *Waarom gaat zij Obama interviewen?* are acceptable reactions to person A’s statement *Zij gaat Obama interviewen.*



In the well-formed example (36), the reason adverbial *waarom* is followed by the focalized constituent *Obama*. In the ill-formed example (37), the manner adverbial *hoe* precedes the focalized constituent. The question obviously arises as to what causes this contrast in well-formedness.

In line with Soare and Shlonsky (2011), I assume that this contrast can be interpreted in terms of Rizzi's (1990) Relativized Minimality condition, which is stated in (38).

(38) Relativized Minimality

In a configuration [...  $\alpha$ ... $\gamma$ ... $\beta$ ...], where  $\alpha$  c-commands  $\gamma$  and  $\gamma$  c-commands  $\beta$ ,  $\gamma$  blocks a relationship between  $\alpha$  and  $\beta$  iff  $\gamma$  is of the same type as  $\alpha$ , where ‘of the same type’ is understood as:

- a. if  $\alpha$  is a head,  $\gamma$  is a head;
- b. if  $\alpha$  is a phrase in an A-position,  $\gamma$  is a phrase in an A-position;
- c. if  $\alpha$  is a phrase in an A-bar-position,  $\gamma$  is a phrase in an A-bar-position.

Specifically, as will be shown in more detail below, (37B) violates Relativized Minimality because the manner wh-phrase *hoe* ‘how’ has been moved to an A-bar position (i.e., [Spec,CP]) across a displaced focalized constituent (*Merkel*) that also occupies an A-bar position. In other words, we have a configuration that corresponds to (38c); see (39b). In (36B), on the contrary, Relativized Minimality is not violated because the reason wh-phrase *waarom* ‘why’ moves to [Spec,CP] from a position higher than the focalized phrase *Obama*.<sup>10</sup> In other words, *waarom* does not move across an intervening phrase in an A-bar position; see (39a).

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<sup>10</sup> Potential evidence in support of displacement of *waarom* ‘why’ comes from patterns in which material (e.g., *in godsnaam*) that is associated with the wh-phrase is “stranded” (see Catasso (this volume)). Consider, for example, the sentences in (i):

- (i) a. *Waarom in godsnaam heb je toch Obama geïnterviewd?*  
       why in god's.name have you PRT Obama interviewed  
       ‘Why on earth did you interview Obama?’
- b. *Waarom<sub>i</sub> heb je [t<sub>i</sub> in godsnaam] toch Obama geïnterviewd?*

Observe that the split and non-split pattern are also attested in the *Waarom XP?*-pattern:

- (ii) A: *Zij zal Obama interviewen.*  
       she will Obama interview
- B: *Waarom in godsnaam toch OBAMA?*

(39) a. [<sub>CP</sub> *waarom*<sub>j</sub> ... [<sub>ReasP</sub> *t<sub>j</sub>* ... [<sub>FocP</sub> *OBAMA*<sub>i</sub> [<sub>Foc'</sub> *Foc* [...*t<sub>i</sub>* ...]]]]]] (36B)

b. \* [<sub>CP</sub> *hoe*<sub>j</sub> ... [<sub>FocP</sub> *MERKEL*<sub>i</sub> [<sub>Foc'</sub> *Foc* [...*t<sub>j</sub>* ... *t<sub>i</sub>* ...]]]]]] (37B)

Let us look in slightly more detail at two important aspects of the analysis depicted in (39): first of all, the different syntactic placement of the reason adverbial and the manner adverbial, and, secondly, the location of the focalized constituent.

In line with Cinque (1999, 2004), I assume that adverbials are base-generated in the specifier position of designated functional projections. Thus, a manner adverbial originates in the Spec-position of Man(ner)P(hrase), and a reason adverbial in the Spec-position of ReasonP(hrase); see Soare and Shlonsky (2011) for the latter proposal. Importantly, Dutch manner adverbials typically occupy a position low in the clausal structure whereas Dutch reason adverbials are located high in the clausal structure.<sup>11</sup> This difference in syntactic placement is reflected in their word order: reason adverbials typically precede manner adverbials, as in (40a). The order ‘manner > reason’ yields an ill-formed sentence, as shown in (40b).

(40) a. ...*dat ze daarom*<sub>Reason</sub> *vriendelijk*<sub>Manner</sub> *Obama aankeek*.

...that she for-that-reason friendly Obama at-looked

‘...that, for that reason, she looked at Obama in a friendly way.’

b. \*...*dat ze vriendelijk*<sub>Manner</sub> *daarom*<sub>Reason</sub> *Obama aankeek*.

The difference between *daarom* and *vriendelijk* as regards their syntactic placement and linearization corresponds to the distinction between clause adverbials and VP-adverbials (Jackendoff 1972). Manner adverbials such as *vriendelijk* ‘friendly’ are VP-adverbials; they restrict the denotation of the verbal predicate. Reason adverbials such as *daarom* ‘for that reason’ do not modify the eventuality expressed by the VP; they rather provide “additional” (*in casu*: reason/causal) information. Under the assumption that these adverbials occupy the specifier-position of designated functional projections, the structure assigned to (40a) corresponds to (41):<sup>12</sup>

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why in god's.name PRT Obama  
B: ' *Waarom* toch *in godsnaam* OBAMA?

<sup>11</sup> See Section 5, though, where it will be shown that there are also low reason adverbials.

<sup>12</sup> In (41), the subject pronoun *ze* ‘she’ occupies the specifier position of the phrasal projection ‘F(unctional)P(hrase)’. I have left the exact (informational) nature of the layer



adverbial can be paraphrased ( $\rightarrow$ ) as: “*Het is ADVERBIAL zo [clause dat .....]*” (It is *ADVERBIAL so [clause that ....]*; ‘it is *ADVERBIAL* the case that ...’).<sup>14</sup> In this paraphrase, the sentence adverbial has been placed external to the lexical domain of the clause and been made part of a copular clause. A sentence containing a VP-adverbial cannot be paraphrased this way. This contrast between clause adverbials and VP-adverbials is exemplified in (44). Sentence (43a), which features the clause adverbial *daarom*, can be paraphrased as (44a). On the contrary, sentence (42a), which features the VP-adverbial *vriendelijk*, cannot be paraphrased as (44b):<sup>15</sup>

(44) a. *Het was daarom zo dat ze Obama aankeek.*

It was for.that.reason so that she Obama looked.at

‘For that reason, it was the case that she looked at Obama.’

b. \**Het was vriendelijk zo dat ze Obama aankeek.*

It was friendly so that she Obama looked.at

Notice at this point that *daarom* and *vriendelijk* can be separated from each other by propositional-modal adverbials such as *waarschijnlijk* ‘probably’, which are generally considered to be clear cases of clause-level modification.<sup>16</sup> The fact that *daarom* precedes the

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<sup>14</sup> The *dat*-clause behaves like a sentential subject that is related to the subject pronoun *het* ‘it’ of the copular clause. The pronoun can also be replaced by the sentential subject, which yields the following variant of sentence (44a): *Dat ze Obama aankeek was daarom zo* (that she Obama looked.at was for.that.reason so, ‘That she looked at Obama was the case for that reason.’).

<sup>15</sup> Importantly, the ill-formedness of (44b) is not related to the categorial status of the VP-adverbial. As shown in (i), a manner-adverbial PP is also excluded in the copular clause:

(i) a. *Ze keek Obama [PP op vriendelijke wijze aan.* (Compare (42a))

she looked Obama at friendly manner PRT

b. \**Het was [PP op vriendelijke wijze] zo dat ze Obama aankeek.*

it was at friendly manner so that she Obama looked.at

<sup>16</sup> Note that application of the two diagnostic tests directly shows that the modal adverbial *waarschijnlijk* ‘probably’ is a clause adverbial:

(i) a. *Ze keek waarschijnlijk Obama aan.*

she looked.at probably Obama PRT

‘She probably looked at Obama.’

b. [*Ze keek Obama aan*] en \**[ze deed dat waarschijnlijk]*.

she looked.at Obama PRT and she did that probably

c. [*Het was waarschijnlijk zo*] *dat ze Obama aankeek.*

it was probably so that she Obama looked.at

modal adverbial *waarschijnlijk* ‘probably’ confirms the idea that *daarom* in (40a) is a clause adverbial rather than a VP-adverbial.

- (45) ..dat ze [<sub>ReasonP</sub> *daarom* [<sub>ModalP</sub> *waarschijnlijk* [<sub>ManP</sub> *vriendelijk* [<sub>VP</sub> *Obama aankeek*]]]]  
 that she for.that.reason probably friendly Obama at.looked  
 ‘..that, for that reason, she will probably look at Obama in a friendly way.’

The class of clause-adverbials includes also the following adverbials: Firstly, as exemplified in (46a), the polarity adverbials *niet* ‘not’ and *wel* (affirmation), and, secondly, the conjunctive adverbials *toch* ‘nevertheless/yet’, and *weer* ‘again’, which function as a sort of linkers indicating contingency relationships (e.g., contrast) between utterances in a discourse (Broekhuis and Corver 2016: 1155). These conjunctive adverbials typically follow the reason adverbial but precede the modal adverbial. Thus, we have the sequence ‘reason > conjunctive > modal’, as in (46b).<sup>17</sup>

- (46) a. ..dat ze [<sub>ModP</sub> *waarschijnlijk* [<sub>PolP</sub> *niet/wel* [<sub>ManP</sub> *vriendelijk* [<sub>VP</sub> *Obama aankeek*]]]].  
 that she probably not/AFFIRM friendly Obama at.looked  
 ‘..that she probably did not look at Obama in a friendly way.’  
 b. ..dat ze [<sub>ReasonP</sub> *daarom* [<sub>ConjunctiveP</sub> *toch* [<sub>ModalP</sub> *waarschijnlijk* [<sub>VP</sub> *Obama aankeek*]]]].  
 that she for.that.reason nevertheless probably Obama at.looked  
 ‘..that she therefore nevertheless looked at Obama, probably.’

Having provided some insight into the hierarchical organization and (related) linearization of various Dutch adverbials, let us next consider the placement of the displaced focalized phrase in the middle field of the Dutch clause. With (46a,b) as base structures, the focalized phrase *Obama* (here abbreviated as *O*) displays the following distribution; ‘—’ designates the base position of the direct object noun phrase *Obama*.

- (47) ..dat <?\*O<sub>4</sub>> ze <O<sub>3</sub>> *waarschijnlijk* <O<sub>2</sub>> *niet* <?\*O<sub>1</sub>> *vriendelijk* -- *aankeek*.  
 that Obama she probably not friendly at-looked  
 ‘..that she probably didn't look at Obama in a friendly way.’ (see (46a))

<sup>17</sup> The sentences in (46) should be pronounced with phonological (sentence) stress on the direct object noun phrase *Obama*, which occupies the base position within VP.

(48) *dat* <\*O<sub>4</sub>> *ze* <O<sub>3</sub>> *daarom* <O<sub>2</sub>> *toch* <O<sub>1</sub>> *waarschijnlijk* -- *aankeek*.  
 that Obama she for-that-reason nevertheless probably at-looked  
 ‘..that she probably didn't look at Obama in a friendly way.’ (see (46b))

The following picture emerges from (47) and (48): the focalized phrase cannot occur in a position (O<sub>4</sub>) preceding [Spec,FP], which is occupied by the weak pronoun *ze* (see (41)). In other words, the focalized constituent cannot occur in the leftmost position of the clausal middle field.<sup>18</sup> As shown by O<sub>1</sub> in (47), it is not possible to have the focalized phrase at the lower end of the middle field, that is, in between the polarity adverbial and the manner adverbial. Positions in which the focalized constituent can appear are those “in the middle of” the so-called middle field, such as O<sub>2</sub> and O<sub>3</sub> in (47), and O<sub>1</sub>, O<sub>2</sub> and O<sub>3</sub> in (48).

Starting from the assumption that focus movement targets the specifier position of a FocP (Rizzi 1997, Broekhuis and Corver 2016: 1639-45), I tentatively propose that placement of the FocP-layer is rather free with respect to adverbial layers in the middle field. An alternative way of looking at this free placement of the FocP, would be to say that there are two (or more) FocPs in the middle field: a relatively high one and a relatively low one (see Broekhuis and Corver 2016: 1640).<sup>19</sup> <sup>20</sup> Potential support for the presence of two FocPs could come from patterns featuring two focalized phrases; see (15) and (35B). I leave an in-depth exploration of the various theoretical options for future research.

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<sup>18</sup> In Broekhuis and Corver (2016: 1756) the middle field of the clause is defined as follows: “that part of the clause bounded to the right by the verbs in clause-final position (if present), and to the left by the complementizer in an embedded clause or the finite verb in second position of a main clause.”

<sup>19</sup> An alternative approach would be to say that there is just a single FocP but that the adverbs can be placed either above or below FocP depending on its scope relative to the contrastive focus. In Neeleman and Van der Koot (2008), yet another approach is taken. According to their analysis, focus movement can target *any* position from which the contrastively focused phrase may take scope over its background. This analysis has the obvious advantage that the rather free placement of the focalized phrase can be easily accounted for. A potential problem for this approach, however, is the fact that the contrastively focused phrase actually cannot target any position, as was shown in (47)-(48). Clearly, the debate on the landing site of focus movement is still ongoing. See Broekhuis and Corver (2016: 1639-1656) for further discussion.

<sup>20</sup> See also Belletti (2004), Aboh (2007), and Zubizarreta (2010) for the idea that the clause contains a low and a high FocP.

The possibility of placing the focalized phrase in a relatively high or relatively low position in the clausal middle field accounts for the facts in (19), repeated here as (49):<sup>21</sup>

(49) A: *Zij zal Obama interviewen.*

she will Obama interview

B: *Waarom {toch / nou / weer / trouwens / ook alweer} OBAMA?*

why {yet / PRT<sub>int</sub> / again / by.the.way / again} Obama

B: *Waarom OBAMA {toch / nou / weer / trouwens / ook alweer}?*

In (49B), the focalized constituent occupies a low Focus position, whereas in (49B') it occupies a higher one. Importantly, under the assumption that adverbs occupy a fixed position in the clausal structure (Cinque 1999), the word order variants in (49B,B') suggest that the deleted part of the clause can vary. In (49B), the deleted part corresponds to the complement of the Focus-head whose specifier position is occupied by *Obama*. In (49B'), on the contrary, the deleted part corresponds to the complement of the functional head whose specifier position is occupied by the adverbial element.<sup>22</sup>

##### 5. Not all reason XPs are permitted in WH-XP: Low reason-adverbials.

So far it has been shown that reason adverbial *waarom* 'why' can be part of the surface pattern *WH XP?*. In the spirit of Soare and Shlonsky (2011), I proposed that this pattern is well-formed because displacement of *waarom* to [Spec,CP] does not cross any intervening focalized phrase (i.e., XP). As a result of that, Relativized Minimality is not violated.

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<sup>21</sup> These word order variants are also possible in embedded contexts:

(i) a. A: *Ze interviewde gisteren Obama.*

she interviewed yesterday Obama

B: *Prima dat ze een oud-president interviewde.*

fine that she a former.president interviewed

'It's fine, of course, that she interviewed a former president.'

*Ik vraag me echter wel af waarom <OBAMA> weer <OBAMA>.*

I wonder REFL however AFF PRT why Obama again

'I do wonder, however, why it was again Obama whom she interviewed.'

<sup>22</sup> See also Weir (2014) for the claim the *Why*-Stripping can target different layers of the clausal structure.

The aim of this section is to show that the statement that reason-XPs can always precede a focalized XP is too strong. There turn out to be reason-XPs that are excluded in the  $Y_{\text{reason}} X_{\text{focus}}$ -pattern. It will be argued that these reason-XPs originate in a position low in the hierarchical organization of the clause, and, specifically, lower than FocP. As a result of that, displacement of such reason-XPs across the (displaced) focalized constituent will yield a violation of the Relativized Minimality condition.

Let us now consider some of these low reason-XPs, which all have an adpositional shape (PP) and can be paraphrased by *vanwege* + DP, meaning ‘because of DP’. The first example is given in (50), where the complement of *om* designates the object that is the reason of someone's emotional state expressed by the verb:

- (50) A: *Ik huil/lach vaak [PP om dierenfilms].*  
 I cry/laugh often because.of animal.movies  
 ‘I often have a laugh/cry because of animal movies.’  
 B: \**Waarom jij?*  
 why you  
 ‘Because of what do you often have a laugh/cry?’

The second example is given in (51), where the complement of *om* designates the reason of an act/action.

- (51) A: *Ik bewonder mijn dochter [PP om haar slimheid].*  
 I admire my daughter for her smartness  
 ‘I admire my daughter because of her smartness.’  
 B: \**En waarom jouw zoon?*  
 and what.for your son  
 ‘And what do you admire your son for?’

Consider next (52), the third illustration, where the complement of *om* designates the person for whom one carries out a certain action. The person is the reason for one's action(s).



- (52) A: *Marie brak* [PP om de kinderen] *haar danscarrière af*.  
 Marie broke for the children her dancing.career off  
 ‘Marie broke off her dancing career because of the children.’
- B: \**Om wie haar zangcarrière?*  
 for whom her singing.career  
 ‘For/because of whom did she break off her singing career?’

The final example is given in (53), where the complement of *om* designates the source/reason of a certain state of affairs, especially a state of fame.<sup>23</sup>

- (53) A: *Nederland is beroemd* [PP om zijn tulpen].  
 The.Netherlands is famous for its tulips  
 ‘The Netherlands is famous for/because of its tulips.’
- B: \**Waarom Duitsland?*  
 what.for Germany  
 ‘What is Germany famous for?’

Before giving an explanation of the ill-formedness of the B-examples in (50)-(53), I would like to point out that classifying these *om*-PPs as being adverbial is supported by their optionality: in (50A)-(53A), the *om*-phrase can easily be left out. Their status as VP-adverbials is supported by the two diagnostic tests that were introduced earlier. Firstly, the sentence containing the adverbial can be paraphrased with a conjoined *PRONOUN doet dat* + *ADVERB* (see (54a)).<sup>24 25</sup>

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<sup>23</sup> Recall from example (16) that the *Waarom XP?*-pattern, besides expressing a contrastive meaning, also has a sense of surprise. A reviewer raises the question as to whether the sentences in (50B)-(53B) also convey a sense of surprise (even if they are ungrammatical). According to my intuitions, they do not.

<sup>24</sup> For semantic reasons —*doen dat* typically replaces a VP denoting an action— the first test cannot be applied to the copular construction in (53A).

<sup>25</sup> The fact that the *om*-phrase can combine with the sequence *PRONOUN doet dat* shows that it is an adjunct-PP. Notice that a (non-reason) complement-PP, headed by *om* and selected by the verb, cannot occur in this template. Consider the following example, in which *denken om XP* (think about XP, ‘to mind XP’) represents the selectional relationship between the verb and the PP:

- (i) *De operazanger dronk nooit alcohol. \*Hij dacht, en hij deed dat om zijn stem.*  
 the opera-singer drank never alcohol he thought and he did that about his voice  
 ‘The opera singer never drank any alcohol. He minded his voice.’

Secondly, the same sentence cannot be paraphrased with *Het is ADVERBIAL zo [clause dat .....]*. This is shown in (54b):

- (54) a. *Marie brak haar danscarrière af en ze deed dat om de kinderen.*  
 Marie broke her dancing.career off and she did that because.of the children  
 b. *\*Het was om de kinderen zo dat Marie haar danscarrière afbrak.*  
 it was because.of the children so that Marie her dancing.career broke.off

Their status as VP-adverbials is further corroborated by the fact that the *om*-phrase can occur in a position following the modal adverbial:

- (55) *Marie brak waarschijnlijk<sub>Modal</sub> daarom<sub>Reason</sub> haar danscarrière af.*  
 Marie cut probably because.of.that her dancing.career PRT

Having shown that Dutch has reason VP-adverbials besides reason clause-adverbials, we can now account for the ill-formedness of the *Waarom XP?*-pattern in (50B)-(53B). These examples are out for the same reason that *Hoe XP?* is out, namely: the interrogative VP-adverbial *waarom* moves across the focalized XP on its way to [Spec,CP]. This yields a configuration in which the displaced phrase occupying an A-bar position (namely, *waarom*) is separated from its trace by another displaced constituent in an A-bar position (namely, *XP*). Schematically, for sentence (51B), where small capitals indicate phonological stress:

- (56) *\*[<sub>CP</sub> Waarom<sub>j</sub>.... [<sub>FocP</sub> JOUW ZOON<sub>i</sub> [<sub>Foc' Foc</sub> [...t<sub>j</sub>....t<sub>i</sub>....]]]]* (51B)

In (56), the direct object noun phrase *jouw zoon* has undergone Focus movement to [Spec,FocP]. The reason VP-adverbial *waarom* is moved from a low adverbial position to [Spec,CP]. On its way to [Spec,CP], it crosses the displaced focalized phrase, which occupies an A-bar position. Consequently, the representation in (56) violates Relativized Minimality.

## 6. Clausal reason adverbials *versus* VP reason adverbials

From the discussion in section 5 we can draw the conclusion that besides high reason adverbials (section 4) there are also low reason adverbials. The former can be part of the *Waarom XP?*-pattern, the latter cannot. In this section, I will discuss some further properties of high and low reason adverbials that relate to this dichotomy.

A first property regards the formal appearances that these two types of adverbials can take. It turns out that the reason VP-adverbial permits a wider range of forms than does the reason clause-adverbial. Specifically, the VP-adverbial can take any R-pronominal form (57), the clause adverbial is restricted to *daarom* (58), and *waarom* ‘why’:

(57) a. *Ik huil vaak* [PP om dierenfilms].

I cry often about animal.movies  
‘I often have cry about/because of animal movies.’

b. *Ik huil vaak* [*daarom*] / [*er om*] / [*overal om*] / [*ergens om*].

I cry often there about there about everything about something about  
‘I often cry about/because of that/it/everything/something.’

(58) a. *Ik ben erg emotioneel. Ik huil* [daarom] *zo vaak*.

I am very emotional I cry for-that-reason so often.  
‘I am very emotional. I therefore often cry.’

b. \**Ik huil* [*er om*] / [*overal om*] / [*ergens om*] *zo vaak*.

I cry it for everything for something for so often

The fact that the reason clause-adverbial *daarom* (and also *waarom*) cannot be substituted for by any other R-pronominal form might be interpreted as evidence for their grammaticalized form. That is, they constitute unanalyzable, non-decomposable units. This is also corroborated by the fact that structurally low reason R-pronominal adverbials can be paraphrased by P + emphatic *wat(te)/dat(te)* in echo-sentences whereas structurally high reason adverbials cannot:

(59) a. *Jij huilt vaak* [*WAAR om*] / [*om WAT(TE)*]?

you cry often what for for what

b. *Moet jij vaak* [*DAAR om*] / [*om DAT(TE)*] *huilen*?

must you often that for for that cry

(60) a. *Oh, moet jij [DAARom] /\*[om DAT(TE)] zo vaak huilen?*

oh must you because.of.that so often cry

‘Oh, THEREfore you have to cry so often!’

b. *WAARom /\*[om WAT(TE)] is het toch zo dat jij zo vaak moet huilen?*

why is it yet so that you so often must cry

‘WHY is it that you have to cry so often?!’

A second property regards the (im)possibility of extracting material out of the *om*-phrase, yielding a preposition stranding pattern. The VP-adverbial *om*-phrase permits subextraction (61), the clause-adverbial *om*-phrase does not (62):

(61) a. *Daar<sub>i</sub> heb ik vaak [PP t<sub>i</sub> om] gehuild.* (e.g., *daar* = animal movies)

there have I often because.of cried

‘I often cried because of that.’

b. *Waar<sub>i</sub> heb jij vaak [PP t<sub>i</sub> om] gehuild?*

where have you often because.of cried

‘Because of what did you often cry?’

(62) a. *Ik ben erg emotioneel. \*Daar<sub>i</sub> huil ik [PP t<sub>i</sub> om] zo vaak.*

I am very emotional there cry I because.of so often

‘I am very emotional. That's why I cry so often.’

b. *\*Waar<sub>i</sub> huil jij [t<sub>i</sub> om] zo vaak?*

where cry you because.of so often

‘Why is it that you cry so often?’

It should be noted that pied piping of the prepositional element *om* yields a well-formed pattern for the clausal adverb in (62): *Daarom huil ik zo vaak* (Compare (62a)); *Waarom huil jij zo vaak?* (Compare (62b)). In short, pied piping is obligatory. Notice further that pied piping is an option for the VP-adverbial *om*-phrase in (61): *Daar om heb ik vaak gehuild* (Compare (61a)); *Waar om heb jij vaak gehuild?* (Compare (61b)).

A third property that distinguishes VP reason adverbials from clause reason adverbials concerns the possibility of being part of a topicalized VP (Den Besten and Webelhuth 1987). As shown in (63B), the adverbial PP *om de kinderen* can be part of a displaced verbal projection.

Notice also that the high (i.e., sentence) adverb *daarom*, which precedes the negative adverb *nooit* ‘never’, is not part of the fronted verbal projection. As a matter of fact, the sentence-level reason adverbial *daarom* cannot be part of a fronted verbal projection, as is shown by the ill-formedness of (64B). It must remain in clause-internal position, as exemplified in (64B’).

(63) A: *Marie houdt erg van haar huidige baan.*

Marie loves a.lot of her current job  
 ‘Marie really loves her present job.’

B: [<sub>VP</sub> ***Om de kinderen haar baan opgeven***]<sub>i</sub> zal zij *daarom* vermoedelijk nooit *t<sub>i</sub>*!  
 for the children her job quit will she therefore presumably never  
 ‘She will therefore presumably never quit her job because of the children.’

(64) A: *Marie voert haar taken uitstekend uit.*

Marie carries her tasks excellently out  
 ‘Marie carries out her tasks in an excellent way.’

B: \****Daarom ontslagen worden*** zal zij *nooit*!  
 therefore fired be will she never  
 ‘Therefore, she will never be fired!’

B:’ [<sub>VP</sub> ***Ontslagen worden***]<sub>i</sub> zal zij ***daarom*** nooit *t<sub>i</sub>*!

Also at the interpretative level, there is a distinction between VP reason adverbials and clause reason adverbials. The former designate a more or less objective reason; there is a referent — an individual, as in (52A), or an object, as in (50a), (51A), (53A)— which represents the reason of the eventuality expressed by the clause. For example, in (50A), animal movies are the reason for my crying, and in (52A), children can be a reason for giving up a job. The clausal reason adverbial *daarom* in (58a), on the other hand, has a more conjunctive role in the sense that it links the utterance of which it is a part, to a preceding utterance. For example, in (58a), the eventuality of my crying is linked to my being emotional, which is expressed in the preceding utterance. Another characteristic of the clause-adverbial *daarom* is its more subjective meaning; that is, there is a greater involvement of a person (the speaker or someone else), who is

responsible for constructing the causal relation. For example, in (58a), the speaker (*ik*, 'I') establishes a relationship between his regular crying and his emotional state of mind.<sup>26</sup>

Having shown that there is a strong empirical basis for distinguishing reason VP-adverbials from reason clause-adverbials, I would like to point out that this leads to the expectation that these two types of reason adverbials can co-occur in a single sentence. As shown in (65)-(66), this is indeed the case.

(65) *Marie houdt erg van haar huidige baan.*

Marie loves much of her current job  
'Marie loves her current job a lot.'

*Zij zal daarom [NegP nooit [VP om de kinderen haar baan opgeven]].*

she will therefore never for the children her job quit  
'For that reason she will never quit her job because of the kids.'

(66) *Marie hecht niet aan geld en status.*

Marie cares not about money and status  
'Marie does not care about money or status.'

*Zij zal daarom [NegP nooit [VP [daarom] haar huidige baan opzeggen]].*

she will therefore never for.that her current job quit  
'Therefore she will never quit her job for that reason.'

Notice that, if there are two types of reason adverbials —namely, a structurally high one and a structurally low one— the existence of the following *Waarom XP?*-pattern is entirely expected.

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<sup>26</sup> See Geerts *et al* (1984: 1163), Pander Maat and Sanders (2001), Stukker (2005) for different types of reason/causality marking in Dutch.

(67) A: *Marie bewondert Obama [om zijn welsprekendheid].*

Marie admires Obama for his eloquence

B: *Waarom<sub>clause-adverbial</sub> (toch) [DAAR om]<sub>VP-adverbial</sub>?*

why yet for.that

‘Why for (= because of) that (and not for something else)?’

*Waarom* is a reason clause-adverbial that has a base position higher than FocP, *daarom* is a reason VP-adverbial that has been moved to [Spec,FocP]. This is depicted in (68):

(68)  $[_{CP} \text{Waarom}_j \dots [_{ReasP} t_j \dots [_{FocP} [_{PP} \text{DAAR om}]_i [_{Foc'} \text{Foc} [\dots t_i \dots]]]]]$

So far I have shown that there are reasons for making a distinction between high reason adverbials and low reason adverbials. Furthermore, it was shown that, given these two classes of reason adverbials, it is not unexpected that we find the pattern *Waarom DAAROM?* (why because.of.that, ‘Why for that reason?’), where the VP-adverbial *daarom* is a phrase that has undergone Focus-movement to [Spec,FocP]. Recall from section 4 that the placement of the focalized phrase is quite versatile; the focalized phrase displays a certain freedom of placement with respect to adverbials in the higher middle field of the Dutch clause (see, for example, (47)-(48)). We find the same freedom of placement with a reason VP-adverbial that has undergone Focus movement to [Spec,FocP]. This versatility is exemplified in (69); the use of small capitals indicates phonological stress.<sup>27</sup>

(69) *Marie houdt erg van haar huidige baan.*

Marie loves much of her current job

‘Marie loves her current job a lot.’

---

<sup>27</sup> In line with the Freezing Constraint (Wexler and Culicover 1980, Corver 2006), extraction from the displaced focalized phrase is impossible. Extraction is possibly only from the lowest (i.e., base) position.

(i) *DAAR<sub>i</sub> zal zij <\*t<sub>i</sub> om> daarom <\*t<sub>i</sub> om> waarschijnlijk <\*t<sub>i</sub> om> nooit*  
 there will she for for.that.reason probably never

*haar baan <t<sub>i</sub> om> opgeven.*

her job give.up

‘She will therefore never give up her job for/because of that.’

- a. *Zij zal daarom waarschijnlijk [om de KINDEREN]<sub>i</sub> nooit [VP t<sub>i</sub> haar baan opgeven].*  
 she will therefore probably because.of the children never her job quit  
 ‘For that reason she will never quit her job because of the kids.’
- b. *Zij zal daarom [om de KINDEREN]<sub>i</sub> waarschijnlijk nooit [VP t<sub>i</sub> haar baan opgeven].*
- c. *Zij zal [om de KINDEREN]<sub>i</sub> daarom waarschijnlijk nooit [VP t<sub>i</sub> haar baan opgeven].*

In line with what was stated in section 4, I tentatively propose that the Focus phrase to whose Spec-position the focalized constituent is moved, has a rather free placement in the clausal middle field. In (69a), it occupies a position in between the modal adverbial *waarschijnlijk* ‘probably’ and the negative temporal adverbial *nooit* ‘never’. In (69b), it occurs in between the clause reason adverbial *daarom* ‘therefore’ and the modal adverbial *waarschijnlijk* ‘probably’. In (69c), finally, it is located in a high position preceding the clause reason adverbial *daarom*.

For the sake of illustration, I have added a few more examples of sentences in which the reason VP-adverbial shows up in a high (displaced) position. These sentences have been drawn from the internet by means of a Google-search. All examples involve patterns in which the displaced low reason adverbial precedes the clause-level reason adverbial; compare (69c).<sup>28</sup>

- (70) a. *De eerste vulkaan ligt meer op de route en zal daarom daarom*  
 the first vulcano lies more on the route and will that-for therefore  
  
*sneller bezocht worden.*  
 faster visited be  
 ‘The first vulcano is more along the same route and, because of that, chances are  
 bigger that people will go there.’

---

<sup>28</sup> It is tempting to analyze the sequences *daarom daarom* (70a), *hierom daarom* (70b), and *om die reden daarom* (70c) as instantiations of a Spec-head configuration in which the first reason adverbial (i.e. the displaced VP-adverbial: *daarom*, *hierom*, *om die reden*) occupies the specifier position of a Reason-head, which is lexicalized by the second reason-adverbial *daarom*. Such an approach would be in line with Rizzi's (2006) idea of  *criterial heads*. A criterial head is a head endowed with a specific feature (e.g., Q, Foc, Top, Neg) that attracts a phrase bearing that feature, thereby designating a position dedicated to the relevant type of interpretation. Under such an approach, a sequence like *daarom daarom* in (70a) would be assigned the representation:  $[_{ReasonP} \text{daarom} [_{Reason'} \text{daarom} [...]]]$ . In view of the examples in (69), where the reason VP-adverbial occupies a position lower than the reason clause-adverbial *daarom* (see (69a,b)), it is not entirely clear that a criterial approach is the right one for these “double reason-adverbial” patterns. I will leave a more in-depth investigation of these patterns for future research.



b. *Ik weet dat ik een prima presentatie kan neerzetten en zal*  
I know that I an excellent presentation can give and will

*hierom daarom in de herkansing dit ook laten zien.*  
this-for therefore in the second-chance this also let show  
'I know I can give an excellent presentation and, for that reason, I will therefore  
show this when I get a second chance.'

c. *Wanneer u als ondernemer een druk bedrijf runt, dan moeten*  
when you as entrepreneur a busy company runs then should

*de randzaken niet te veel aanwezig zijn. Overweeg om die reden*  
the side-issues not too much present be consider for that reason

*daarom een gietvloer.*  
therefore a cast-floor

'When you are running a business as an entrepreneur, you should not be bothered by  
unimportant issues. For that reason you should therefore consider a cast floor.'

Summarizing, I have shown that reason VP-adverbials display different behavior from reason clause-adverbials. It was further observed that the two types of reason adverbials can co-occur in one and the same clause. In line with this, it was shown that the pattern *Waarom daarom?* ('Why for that reason?') is a well-formed linguistic expression in Dutch. Finally, it was observed that the reason VP-adverbial can be displaced to a position in the clausal middle field.

## 7. *Wanneer XP?* and *Waar XP?*

In section 4, I have given an account of the well-formedness of the pattern *Waarom<sub>reason</sub> XP?* (36), and the ill-formedness of the pattern *Hoe<sub>manner</sub> XP?* (37). The ill-formedness of the patterns *Waar* ('where') *XP?* (2) and *Wanneer* ('when') *XP?* (3) can be accounted for along the same lines as the ill-formedness of *Hoe<sub>manner</sub> XP?* Specifically, the locative adverbial *waar* 'where' and the temporal adverbial *wanneer* 'when' function as VP-adverbials in (2) and (3): they

restrict the denotation of the predicate by anchoring the eventuality at a certain location or time. Their low placement in the hierarchical organization of adverbials is suggested by the fact that temporal and locative adverbials occur in a position following the modal adverbial:<sup>29</sup>

- (71) a. *..dat ze waarschijnlijk in Chicago/daar Obama zal interviewen.*  
 that she probably in Chicago/there Obama will interview  
 ‘..that she will probably interview Obama in Chicago/there.’  
 b. *..dat ze waarschijnlijk morgen/dan Obama zal interviewen.*  
 that she probably tomorrow/then Obama will interview  
 ‘..that she will probably interview Obama tomorrow/then.’

Focus movement of *Obama* yields a word order pattern in which *Obama* either immediately follows *waarschijnlijk* or immediately precedes it:

- (72) *..dat <\*O<sub>3</sub>> ze <O<sub>2</sub>> waarschijnlijk <O<sub>1</sub>> morgen/in Chicago -- zal ontmoeten.*

Since the displaced phrase *Obama* ends up in a position (namely [Spec,FocP]) that is structurally higher than is the temporal/locative adverbial (*morgen/in Chicago*), displacement of an interrogative temporal (*wanneer*) or locational (*waar*) adverbial to [Spec,CP] will yield a violation of the Relativized Minimality condition: the derived structure is a configuration in which a phrase in an A-bar position (*in casu* the wh-phrase in [Spec,CP]) is separated from its trace position by an intervening phrase in an A-bar position. To make things more concrete, consider again the examples in (2) and (3), which are repeated here as (73) and (74), respectively. I have added the modal adverbial *waarschijnlijk* in order to make clear that the spatio-temporal adverbial originates as a VP-adverbial.

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<sup>29</sup> In sentences containing both a temporal VP-adverbial and a locational VP-adverbial, the former typically precedes the latter, as shown in (i). The two VP-adverbials are most comfortable in a position preceding the manner adverbial (Broekhuis and Corver 2016: 1191):

- (i) a. *Zij zal [waarschijnlijk] [om twee uur] [in het park] [luid] gaan roepen.*  
 she will probably at two o'clock in the park loudly go shout  
 ‘She will probably start shouting loudly in the park at two o'clock.’  
 b. modal > temporal > locational > manner

(73) A: *Zij zal waarschijnlijk morgen Obama interviewen.*

she will probably tomorrow Obama interview

B: *\*Wanneer Merkel?*

when Merkel

‘When will she interview Merkel?’

(74) A: *Zij zal waarschijnlijk in Chicago Obama interviewen.*

she will probably in Chicago Obama interview

B: *\*Waar Merkel?*

where Merkel

‘Where will she interview Merkel?’

The derived structure of the B-examples is schematically represented in (75):

(75) *\*[<sub>CP</sub> wanneer<sub>j</sub>/waar<sub>j</sub> .... [<sub>FocP</sub> MERKEL<sub>i</sub> [<sub>Foc'</sub> Foc [...t<sub>j</sub>....t<sub>i</sub>....]]]]*

This configuration clearly violates Rizzi's (1990) Relativized Minimality principle: the wh-phrase (*wanneer/waar*) in [<sub>Spec,CP</sub>] is separated from its trace by the intervening focalized phrase in [<sub>Spec,FocP</sub>], which is an A-bar position.

At this point, the following question arises: Do locational and temporal adverbials occur only as VP-adverbials or can they also occur as clause-adverbials, just like reason adverbials? The answer to this question is: “No, they do not only occur as VP-adverbials, and, yes, they can occur as clause-adverbials.” As noted in Broekhuis and Corver (2016: 1150-1154), spatio-temporal adverbials are not only used as VP adverbials but also as clause adverbials. Examples (76a, b) which feature two temporal adverbials or two locational adverbials, separated by an intervening modal adverbial, suggest that the high (clause-modification) versus low (VP-modification) dichotomy is also found with spatio-temporal adverbials.<sup>30</sup> I have added example (76c) to show the parallel with sentences containing two different types of reason-adverbials.

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<sup>30</sup> As noted in Broekhuis and Corver (2016: 1151), the two spatio-temporal adverbials in (76) obey certain ordering restrictions: the spatial domain or time interval referred to by the clause adverbial (*in New York, op Kerstavond*) must include the location or time referred to by the VP adverbial (*in het Ritz-hotel, om 10 uur*). The reverse ordering is infelicitous, as shown in (i). This ordering constraint does not seem to be due to syntactic factors. Rather, some semantic constraint seems to play a role here. A reason for thinking

- (76) a. *Ze zal in New York waarschijnlijk in het Ritz-hotel een persconferentie geven.*  
 she will in New York probably in the Ritz-hotel a press.conference give
- b. *Ze zal op Kerstavond waarschijnlijk om 10 uur een persconferentie geven.*  
 she will on Christmas.Eve probably at 10 o'clock a press.conference give
- c. *Ze zal daarom waarschijnlijk om de kinderen haar baan opzeggen.*  
 she will therefore probably because.of the children her job quit

Besides the evidence in (76) for the existence of high and low spatio-temporal adverbials, their existence is also supported by the two diagnostic tests that were introduced earlier. Specifically, under the VP-adverbial use of the spatio-temporal adverbial, the clause containing it can be paraphrased with a conjoined *PRONOUN doet dat + ADVERB* ‘PRONOUN does that + ADVERB’ clause; see (77). And under the clause-adverbial use, the sentence with the clause adverbial can be paraphrased as: ‘*Het is ADVERBIAL zo [clause dat .....]*’ (It is *ADVERBIAL so [clause that ....]*); see (78).

- (77) a. [*Ze zal in New York waarschijnlijk een persconferentie geven*] en [*ze zal*  
 she will in New York probably a press.conference give and she will  
*dat doen in het Ritz-hotel*].  
 that do in the Ritz-hotel
- b. [*Ze zal op Kerstavond waarschijnlijk een persconferentie geven*] en [*ze zal*  
 she will on Christmas.Eve probably a press.conference give and she will  
*dat doen om 10 uur*].  
 that do at 10 o'clock

---

this is the fact that (i) becomes fully acceptable when the second (i.e., VP-adverbial modifier) is absent. This is exemplified in (ii).

- (i) a. #*Ze zal in het Ritzhotel waarschijnlijk in New York een persconferentie geven.*  
 b. #*Ze zal om 10 uur waarschijnlijk op Kerstavond een persconferentie geven.*
- (ii) a. *Ze zal in het Ritzhotel waarschijnlijk een persconferentie geven.*  
 b. *Ze zal om 10 uur waarschijnlijk een persconferentie geven.*

- (78) a. *Het zal in New York waarschijnlijk zo zijn dat ze in het Ritz-hotel*  
 it will in New York probably so be that she in the Ritz-hotel  
*een persconferentie geeft.*  
 a press.conference gives
- b. *Het zal op Kerstavond waarschijnlijk zo zijn dat ze om 10 uur*  
 it will on Christmas.Eve probably so be that she at 10 o'clock  
*een persconferentie geeft.*  
 a press.conference gives

Recall from section 6 that the existence of the pattern *Waarom DAAROM?* (see (67)), with *waarom* being a clause-adverbial and *daarom* being a VP-adverbial, is entirely expected. The question now arises as to whether we find the same type of pattern with spatio-temporal adverbials; that is: *Wanneer XP<sub>temporal</sub>?* and *Waar XP<sub>locational</sub>?*, where the wh-phrase is a sentence-adverbial and the focalized XP a VP-adverbial. The examples in (79)-(80) suggest that these patterns are possible in Dutch; small capitals indicate phonological stress:<sup>31</sup>

(79) A: *Merkel zal in twee Amerikaanse steden een persconferentie geven.*

Merkel will in two American cities a press.conference give  
*Eén in het Ritz-hotel, de ander in het Carlton.*  
 one in the Ritz-hotel the other in the Carlton

B: [*Waar*] [*in het RITZ-HOTEL*], en [*waar*] [*in het CARLTON*]?

where in the Ritz-hotel and where in the Carlton

‘Where (= in which city) in the Ritz hotel, and where (= in which city) in the Carlton hotel?’

(80) A: *Merkel zal in twee verschillende maanden een persconferentie geven.*

Merkel will in two different months a press.conference give  
*Eén op een woensdag, en één op een zaterdag.*  
 one on a Wednesday and one on a Saturday

---

<sup>31</sup> Importantly, the locational wh-phrase *waar* and the PP that follows it, do not form a complex adpositional phrase in which *waar* acts as a (spatial) modifier of the PP. In other words, the strings *waar in het Ritz-hotel* and *waar in het Carlton* do not have the following structure: [<sub>PP</sub> *waar* [<sub>P'</sub> *in het Ritz-hotel/Carlton*]], where *waar* asks for a space (e.g., a room) located within the Ritz-hotel/Carlton. Notice that, under this structure and reading, *waar* typically carries emphatic stress.

B: [*Wanneer*] [*op een WOENSDAG*], *en* [*wanneer*][*op een ZATERDAG*]?  
 when on a Wednesday and when on a Saturday  
 ‘When (= in which month) on Wednesday, and when (= in which month) on Saturday?’

In (79B), we have the pattern *Waar XP<sub>locational</sub>*? Importantly, the explicit contrastive set-up (i.e. ‘Where PP<sub>Loc</sub>? and where PP<sub>Loc</sub>?’) makes the *Waar XP<sub>locational</sub>*? more acceptable. The same holds for the *Wanneer XP<sub>temporal</sub>*?-pattern. The derived structure of the two patterns can be schematically represented as follows (Compare (68)):

(81) a. [<sub>CP</sub> *Waar*<sub>j</sub> ... *t<sub>j</sub>*... [<sub>FocP</sub> [<sub>PP</sub> *in het RITZ-HOTEL*]<sub>i</sub> [<sub>Foc'</sub> *Foc* [...*t<sub>i</sub>*...]]]]] (79B)

b. [<sub>CP</sub> *Wanneer*<sub>j</sub> ... *t<sub>j</sub>*... [<sub>FocP</sub> [<sub>PP</sub> *op een WOENSDAG*]<sub>i</sub> [<sub>Foc'</sub> *Foc* [...*t<sub>i</sub>*...]]]]] (80B)

Now, if the patterns in (79B) and (80B) are possible, one would expect patterns featuring a focalized argument (e.g., a direct object noun phrase) to be possible as well. In other words, patterns such as (73B) and (74B) might not be so bad after all. What is important is that the contrastive context is sufficiently clear. For certain speakers (including myself), (73B) and (74B) already get better when they are introduced by the coordinating conjunction *en* ‘and’, as in *En wanneer Merkel?* (and when Merkel, ‘And when will she interview Merkel?’) and *En waar Merkel?* (and where Merkel, ‘And where will she interview Merkel?’).<sup>32</sup> I take *en* ‘and’ to be a regular coordinating conjunction by assuming that the silent left conjunct represents the alternative provided by the common ground. Thus, the expression *En wanneer/waar Merkel?* has the structure in (82):

(82) [<sub>ConjP</sub>  $\emptyset$ <sub>common ground</sub> [<sub>Conj'</sub> *en* [<sub>CP</sub> *wanneer/waar*<sub>j</sub> ...*t<sub>j</sub>* ... [<sub>FocP</sub> [<sub>DP</sub> *MERKEL*]<sub>i</sub> [<sub>Foc'</sub> *Foc* [...*t<sub>i</sub>*...]]]]]]]

$\emptyset$  represents the silent left conjunct, the meaning of which is provided by the common ground ‘She will interview Obama tomorrow/in Chicago’. The meaning of the common ground stands in opposition to the meaning of the right conjunct.<sup>33</sup>

<sup>32</sup> Recall footnote 1.

<sup>33</sup> See Broekhuis and Corver (2017) for discussion of another Dutch construction in which, at the surface, the coordinating conjunction *en* ‘and’ introduces the sentence. They call this construction the ‘expressive *en maar* (and but) construction’. An example is given in (ia). They claim that the left conjunct of this coordinate structure is silent ( $\emptyset$ ), and that

Another discourse context in which the use of the pattern *Wanneer Merkel?* considerably improves, is given in (83):

- (83) A: *Zij zal enkele wereldleiders interviewen.*  
 she will some world.leaders interview  
*Maandag OBAMA, Dinsdag MACRON, Woensdag POETIN.*  
 monday Obama Tuesday Macron Wednesday Poetin  
 B: *Wanneer MERKEL?*  
 when Merkel  
 ‘When will she interview Merkel?’

In (83A), a list of (contrastive) pairs is given, where the pairs consist of the one who is interviewed and the date at which the interview will take place. After speaker A has given a list of pairs, it is quite natural for person B to ask: *Wanneer Merkel?* Also in this example, adding *en* ‘and’ (*En wanneer Merkel?*) turns the utterance in a completely natural one.

Summarizing, I tried to show in this section that the patterns *Waar* (‘where’) *XP?* and *Wanneer* (‘when’) *XP?*, which are traditionally considered to be impossible, are in fact possible if the right discourse context, namely one in which a contrastive relationship holds, is sufficiently clear. It was further shown that both locational and temporal adverbials, just like reason adverbials, can be of two types: VP-adverbial and clause-adverbial. It is the latter type that can occur in the *Wanneer/Waar XP?*-pattern.

## 8. Variations on a theme.

In section 4, I showed that the wh-phrase *waarom* can occur in combination with a focalized phrasal constituent, yielding the surface pattern *waarom XP?* Interestingly, this surface pattern

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this silent conjunct designates the common ground (*in casu* the alternative ‘x listens’) which is contrasted with the information provided by the right conjunct (‘x does not listen’); see (ib).

- (i) a. *En maarniet luisteren!*  
 and PRT not listen  
 ‘You keep on refusing to listen!’  
 b. [ConjP  $\emptyset$ <sub>common ground</sub> [Conj en [PRO maar niet luisteren]]] (PRO = the addressee)

is found also with several other reason adverbials, both interrogative (84) and non-interrogative ones (85).<sup>34</sup>

(84) Dentist: *Poetst u elke dag uw tanden?*

brush you every day your teeth

Patient: *Vanwaar [DIE VRAAG]?*

from.where that question

‘Why are you asking?’

(85) a. *Uw gebit is belangrijk.*

your teeth is important.

*Vandaar<sup>35</sup>/Daarom/Derhalve* DIT ADVIES: *Poets uw tanden!*

therefore this advice: brush your teeth

‘Your teeth are important, whence this advice: Brush your teeth!’

b. *Jan heeft te fanatiek getraind. Zodoende die blessure.*

Jan has too fanatically trained so-doing/thus this injury

‘Jan trained too fanatically. That's why he has that injury now.’

Also for these examples it can be shown that they have a clausal basis. As shown in (86), for example, particles/adverbs that typically occur in clausal environments can appear in between the left-peripheral reason-adverbial and the focalized XP:

(86) a. *Vanwaar {toch / nou / weer / dan} [DIE KRITIEK]?*

whence {yet / PRT<sub>int</sub> / again / then) that criticism

‘Why are you criticizing me?’

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<sup>34</sup> See English *whence*, *hence*, and *thence*. An example of a *whence XP*-pattern is given in (i):

(i) *This work is slow and dangerous, whence the high costs.*

<sup>35</sup> Finite clauses (CP) are quite common after *vandaar*, as in (i):

(i) *Ik had die nacht slecht geslapen. Vandaar [CP dat ik zo moe was].*

I had that night badly slept whence that I so tired was  
‘I slept badly that night. That's why I was so tired.’



- b. *Vandaar* {*dus* / *vermoedelijk*} [*DIE KRITIEK*]: .....
- therefore thus/presumably that criticism
- ‘That explains that criticism.’

I assume that, just like *waarom*, the reason adverbials in (84)-(85) find their origin in the specifier position of the functional projection *ReasP*, which is located above *FocP*. In other words, these reason adverbials start out as clausal modifiers. From there, the reason adverbial moves to the specifier position of *CP*. Schematically:

- (87) a. [<sub>CP</sub> *vanwaar*<sub>j</sub> [ .. *toch* .. [<sub>ReasP</sub> *t<sub>j</sub>*... [<sub>FocP</sub> *DIE KRITIEK*<sub>i</sub> [<sub>Foc'</sub> *Foc* [.....*t<sub>i</sub>*.....]]]]]]]]
- b. [<sub>CP</sub> *vandaar*<sub>j</sub> [ .. *dus* .. [<sub>ReasP</sub> *t<sub>j</sub>*... [<sub>FocP</sub> *DIE KRITIEK*<sub>i</sub> [<sub>Foc'</sub> *Foc* [.....*t<sub>i</sub>*.....]]]]]]]]

The clause-adverbial status of the reason-adverbial elements in (84)-(85) is confirmed by the two by now familiar diagnostic tests (here illustrated by means of *vandaar*): Firstly, *vandaar* cannot occur as a modifier of *doet dat* ‘does that’, which suggests that it is not a VP-modifier but a clausal modifier (88b). Secondly, the sentence containing *vandaar* can be paraphrased as ‘*Het is ADVERBIAL zo [clause dat .....]*’ (It is ADVERBIAL so [clause that .....]); see (88c). Example (88a) shows the sentence on which the variants (88b) and (88c) are based.

- (88) *De coach vond Messi niet goed spelen ...*
- the coach considered Messi not well play
- ‘The coach thought Messi did not play well ...
- a. *en heeft hem vandaar gewisseld.*
- and has him thence replaced
- and replaced him for that reason.’
- b. \**en heeft hem gewisseld, en hij deed dat vandaar.*
- and has him replaced and he did that thence
- c. *en het is vandaar zo dat hij hem gewisseld heeft.*
- and it is thence so that he him replaced has
- and it is for that reason that he replaced him.’

The reason adverbials *vanwaar* and *vandaar* have a meaning relationship with the spatial expressions *van waar* ‘from where’ and *van daar* ‘from there’, which occur in sentences such as (89a) and (89b), respectively:

- (89) a. Van waar heb je een mooi uitzicht op de krater?  
 from where have you a nice view of the crater  
 ‘From where do you have a nice view of the crater?’
- b. Van daar heb je een mooi uitzicht op de krater.  
 from there have you a nice view of the crater  
 ‘From over there you have a nice view of the crater.’

The combination of locative *waar/daar* ‘where/there’ and directional *van* ‘from’ yields a source interpretation ‘from which/that place’. Under the reason-adverbial interpretation (see (85a), (88a)), the source is identified as the reason or cause of something. Although the spatial expressions *van waar* and *van daar* have the same phonological stress pattern as the reason adverbials *vanwaar* and *vandaar*, namely stress on *daar/waar*, there are reasons for assigning them different structural representations.<sup>36</sup> Specifically, the reason adverbials constitute (complex) words, whereas the spatial expressions are phrases. Evidence in support of this contrast comes from (i) the (im)possibility of having material that intervenes between *van* and *waar/daar*, and (ii) the (im)possibility of replacing *waar/daar* by a complex noun phrase (e.g., *die plek* ‘that place’). As shown in (90), these manipulations are possible with the spatial expression *van daar* (here exemplified with *daar*):

- (90) a. Van af daar heb je een mooi uitzicht op de krater.  
 from PRT there have you a nice view of the crater  
 ‘From there you have a nice view of the crater.’
- b. Van die plek heb je een mooi uitzicht op de krater.  
 from that place have you a nice view of the crater  
 ‘From that place you have a nice view of the crater.’

The reason adverbial *vandaar* does not permit separation of *van* and *daar* (*\*vanafdaar*), nor does it allow replacement by a complex noun phrase: *\*van die reden* (of that reason; intended meaning: ‘therefore/thence’).

Having shown that the reason adverbials *vanwaar/vandaar* and the locative expressions *van waar/van daar* have different structural representations, I would like to draw your attention to

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<sup>36</sup> This is also visible orthographically. In spatial expressions, *van* and *waar/daar* are written as two separate elements. In reason-adverbial expressions, on the other hand, they are written as a single unit: *vanwaar/vandaar*.

another asymmetry: reason adverbials can be followed by a focalized XP, as was already shown in (84)-(85), the spatial expressions *van waar/van daar* cannot. This contrast is illustrated in (91):

(91) Context: Sue shows Bill pictures of her visit to Paris and says the following:

*We stonden op de Eiffeltoren.*

we stood on the Eiffeltower

a. *Vandaar*<sub>Reason</sub> [DIT UITZICHT]

from.there (= ‘whence’) this view

‘Whence this view.’ (as presented on the picture)

b. \**Van daar*<sub>Spatial</sub> [DIT UITZICHT].

from there this view

‘From there we had this view.’

The contrast between (91a) and (91b) can again be accounted for along the lines sketched in (92):

(92) a. [<sub>CP</sub> *Vandaar*<sub>j</sub>.... [<sub>ReasP</sub> *t<sub>j</sub>*.... [<sub>FocP</sub> DIT UITZICHT<sub>i</sub>[<sub>Foc'</sub> *Foc* [.....*t<sub>i</sub>*.....]]]]]] (= (91a))

b. \* [<sub>CP</sub> *Van daar*<sub>j</sub> .... [<sub>FocP</sub> DIT UITZICHT<sub>i</sub>[<sub>Foc'</sub> *Foc* [.....*t<sub>j</sub>*....*t<sub>i</sub>*.....]]]]] (= (91b))

Displacement of the (clausal) reason adverbial *vandaar* in (92a) does not yield a violation of the Relativized Minimality condition: *vandaar* does not cross the intervening focalized constituent *dit uitzicht*. In (92b), however, the locative expression *van daar* originates in a position hierarchically lower than FocP. As a result of that, movement of *van daar* to the left periphery of the clause crosses the intervening focalized phrase *dit uitzicht*. Consequently, Relativized Minimality is violated.

## 9. Conclusion

In this chapter, the Dutch pattern *Waarom XP?*, known under the name of *Why-Stripping*, was studied. It was proposed that the reason adverbial *waarom* moves from a clause-adverbial position (the specifier of ReasonP) to [Spec,CP]. The remnant XP that follows *waarom*, is a focalized constituent that undergoes movement to [Spec,FocP]. Importantly, on its way to [Spec,CP], the wh-phrase *waarom* does not cross the displaced focalized constituent, for the

simple reason that the clause-adverbial position in which *waarom* originates, is located higher than [Spec,FocP]. Consequently, displacement of *waarom* does not yield a violation of the Relativized Minimality constraint. It was further shown that displacement of structurally low reason-adverbials (i.e. VP-modifiers) in *Why*-Stripping environments causes a violation of the Relativized Minimality constraint. Finally, I tried to show that the distinction between high (i.e., clause-modifying) versus low (i.e., VP-modifying) adverbials also matters for stripping patterns involving spatio-temporal adverbials. Manner-adverbials, being canonical VP-modifiers, typically do not occur in stripping environments. Finally, it was shown that the pattern ‘Reason adverbial + XP’ has different manifestations in Dutch, and also occurs with non-interrogative reason-adverbials.

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