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Reflections on Comparatives and Superlatives through a Modular Lens

Abstract: The aim of this chapter is to study and rethink the linguistic nature of four degree-related grammatical formatives in the Dutch language. I will do this by examining them through a modular lens rather than a construction-specific lens. Two of those formatives are found in comparative constructions, namely the comparative bound morpheme *-er*, as in *lager* ‘lower’, and the standard marker *dan* ‘than’. The other two grammatical formatives are attested in superlative adjectival constructions that are used predicatively, namely the superlative marker *'t*, which superficially looks like the neuter definite article, and the bound morpheme *-e*, which appears to attach optionally to the superlative adjective, as in *'t laagst(-e)*, ‘*t lowest(-e)*, ‘lowest’. It is proposed for each of these four elements that they are not construction-specific properties but rather properties that can be found in other structural environments as well. In short, comparative formation and superlative formation involve grammatical properties that are attested also elsewhere in the syntax of Dutch. With this result, this chapter hopes to show that the strategy of reflecting on language through a modular lens allows us to see hidden abstract structures underneath of the linguistic sound surface.

Key words: comparatives, superlatives, polarity, standard marker, pronoun, Construct State, defamiliarization, Dutch

1 Introduction

In *Language and Mind*, Chomsky (1968:24) points out that phenomena can be so familiar that we really do not perceive them at all. For example, people living near a bell tower for some time no longer hear the chimes of the clock. This familiarity of phenomena, as Chomsky notes, has been discussed by various literary theorists and philosophers, one of them being the Russian Formalist Viktor Shklovsky. In his 1917 essay *Art as Technique* (alternatively, *Art as Device*), Shklovsky developed the idea that the purpose of (poetic) art is to make objects “strange” so that the perceiver —for example, the reader of a poem or novel— gains new perspectives and sees the world in a different way. This technique of “making strange” the object depicted was coined ‘defamiliarization’ (Russian: *ostranenie*). As an example, Shklovsky uses Tolstoy’s novel *Kholstomer*, in which social customs and institutions are made strange by presenting them from the perspective of a narrator who happens to be a horse rather than a person. In other words, looking at the world through an equine lens makes common things visible —that is, less hidden— again.

According to Chomsky, this familiarity of phenomena has an effect not only on our perception of them (i.e., observation) but also on our explanation of them. In his words (p. 25): “[..] we also lose sight of the need for explanation when phenomena are too familiar and “obvious”. We tend too easily to assume that explanations must be transparent and close to the surface.” As Chomsky notes, such an approach fails to appreciate the abstractness of the structures and operations that are present in the human mind.

Throughout its history, this defamiliarization of surface phenomena and the quest for hidden abstract structures underlying them has been at the heart of generative grammar. One important device for making familiar (syntactic) phenomena strange was the elimination of the notion of grammatical construction. As stated in Chomsky (1993:4):

“The notion of grammatical construction is eliminated, and with it, construction-particular rules. Constructions such as verb phrase, relative clause, and passive remain only as taxonomic artifacts, collections of phenomena explained through the interaction of the principles of UG, with the values of parameters fixed.”

A passive construction like (1), for example, was no longer looked at through a construction-specific lens as instantiated by the transformational rule in (1), where reordering of nominal material and the insertion of lexical items (*be*, *by*) and morphology (*-ed*) was represented in a single, construction-specific rule; see Van Riemsdijk & Williams (1986):¹

(1) The car was fixed by Mary.

(2) Passive transformation

	X	–	NP	–	AUX	–	V	–	NP	–	Y	–	<i>by</i>	–	Z
SD	1		2		3		4		5		6		7		8 →
SC	1		5		3+ <i>be</i>		4+ <i>ed</i>		∅		6		7+2		8

The passive construction was made strange by looking at it from a *modular* perspective: it is a collection of grammatical properties which are attested also in other syntactic constructions of the language and are accounted for by separate systems of the theory of grammar, such as X-bar theory, case theory, theta theory and the theory of movement (Chomsky 1981). For example, the agentive *by*-phrase can be found in a passive construction like (3a) but also in a nominal construction like (3b). The morphology *-ed* on the participle *fixed* in (4a) was traditionally analyzed as passive (verbal) morphology. This same morphological ending, however, is also attested on participles selected by a perfective auxiliary, as in (4b). Finally, displacement of the Theme-object to the subject position, as in (5a) is a property that is found not only in passive constructions but also, for example, in subject-to-subject raising constructions, as in (5b).

¹ SD stands for Structural Description, SC for Structural Change.

- (3) a. All these pictures were painted **by van Gogh**.
 b. a painting **by Van Gogh**.
- (4) a. The car was **fixed** (by Mary).
 b. Mary has just **fixed** the car.
- (5) a. **John** was welcomed ~~John~~ (by the committee).
 b. **John** seems [~~John~~ to be unhappy].

The strategy of looking at language through a *modular* lens led to other devices of making surface phenomena strange and laying bare abstract underlying structures. Firstly, one started looking at linguistic phenomena through a *cross-categorial* lens.² For example, phenomena attested in the clausal domain should be expected to be found in other categorial domains as well. This quest for cross-categorial parallelism received empirical support from various empirical angles. As noted in Chomsky (1970), for example, passive-like phenomena are attested both in the clausal domain (*The city was destroyed by the enemy*) and in the nominal domain (*The city's destruction by the enemy*), and, as noted in Cinque (1980) and Szabolcsi (1983), subextraction from noun phrases, just like subextraction from clauses (Chomsky 1977), typically proceeds via a hierarchically peripheral position in the nominal/clausal domain. These so-called escape hatches are currently identified as [Spec,DP] and [Spec,CP], respectively.

The aim of this chapter is to study and rethink the linguistic nature of four degree-related grammatical formatives in the Dutch language. I will do this by examining them through a modular lens rather than a construction-specific lens. Two of those formatives are found in comparative constructions, namely the comparative morpheme *-er*, as in *lager* 'lower', and the standard marker *dan* 'than', as in *dan dat vliegtuig*; see (6a). The other two grammatical formatives are attested in superlative adjectival constructions that are used predicatively, namely the superlative marker 't, which superficially looks like the neuter definite article (e.g., 't *huis*, the_{neuter} house), and the bound morpheme *-e*, which is optionally attached to the superlative adjective; see (6b).

- (6) a. Dit vliegtuig vliegt **lager dan** dat vliegtuig.
 this airplane flies lower than that airplane
- b. Dit vliegtuig vliegt 't laagst(e).
 this airplane flies 't lowest(-e)
 'This airplane flies lowest.'

It will be argued for these four elements that they are not construction-specific properties but rather properties that can also be found in other structural environments. In short, just

² Another device which helped in defamiliarizing language-specific surface phenomena was the study of phenomena through a *cross-linguistic, comparative-syntactic* lens (Baker 2008, Kayne 2005). When you look through a "foreign" lens at a surface phenomenon present in a familiar language like your mother tongue, you often start to see hidden, previously unidentified properties of this phenomenon in the more familiar language.

like passivization, comparative formation and superlative formation involve grammatical properties that are attested also elsewhere in the syntax of Dutch.

The chapter is organized as follows: sections 2 and 3 focus on adjectival comparative formation. Section 2 examines the grammatical nature of the comparative morpheme *-er*, and section 3 the grammatical nature of the standard marker *dan* ‘than’. Section 4 discusses superlative formation. Specifically, it investigates the nature of the element ‘*t*’, which is present at the beginning of the superlative pattern, and the (apparently) optional element *-e*, which is attached to the superlative adjective. Section 5 concludes this chapter.

2. Reflections on comparative *-er* through a modular lens

Traditionally, the bound morpheme *-er* in comparative constructions like (7) is analyzed as a comparative marker whose appearance is restricted to adjectival environments. Thus, *-er* is considered to be a construction-specific property.

- (7) Peter is [lang-er dan Marie].
Peter is tall-er than Mary
‘Peter is taller than Mary.’

If the modular approach to constructions is taken seriously, however, it is legitimate to raise the question as to whether this construction-specific status of *-er* holds true. That is, are comparative adjectival constructions the only structural environments featuring *-er*? In this section, I will answer this question with: “Yes and No!”. The No-part of my answer is motivated by the fact that *-er* is attested also in other structural environments in Dutch. The Yes-part receives support from the fact that comparative *-er* occupies a different structural position than does “non-comparative” *-er*. Specifically, comparative *-er* realizes a functional head-position which is part of adjectival *phrase* structure (i.e., phrasal syntax), while “non-comparative” *-er* is a derivational morpheme that is part of *word* structure (i.e., word syntax). Importantly, I assume that “high” (i.e., phrase-level) *-er* and “low” (i.e., word-level) *-er* encode the same meaning property, namely ‘polarity’.

I will start my quest for the grammatical nature of comparative *-er* by making it “strange”. I will do this by looking at *-er* through an adpositional lens. Consider for this the Dutch examples in (8):³

- (8) a. Het boek lag [_{PP} acht-er de kast].
the book lay behind the cupboard
b. Het boek lag [_{PP} ond-er de kast].
the book lay under the cupboard

³ See Jespersen (1924/1977; Chapter XVIII ‘Comparison’) for the observation that English *after* and Danish *efter* are formal comparatives, that is, forms featuring comparative *-er*.

- c. over ‘over’, voor ‘before’, door ‘through’, naar ‘to’, ..

These examples show that many spatial adpositions have *-(e)r* at the end. Obviously, the fact that both *langer* ‘taller’ and *achter* ‘behind’ end in *-er* is not a strong basis for concluding that *-er* represents one and the same element in the two patterns. For one thing, there are many words that end in *er* which arguably do not have any relationship with comparative *-er*. Think, for example, of non-compositional words such as *adder* ‘adder’ and *boter* ‘butter’, but also compositional ones such as *sprek-er* (speak-er, ‘speaker’) and *jag-er* (hunt-er, ‘hunter’), in which the suffix *-er* represents the agent of the activity denoted by the first part of the complex word.

A stronger reason for treating comparative *-er* and spatial *-er* as one and the same exponent, comes from their similarity in meaning. Specifically, comparative constructions and spatial constructions typically encode an ordering relation between two entities. For showing this, consider first the comparative construction in (9):

- (9) [target of comparison Het vliegtuig] is **lager** dan [standard of comparison de wolk].
the airplane is lower than the cloud
‘The airplane is situated lower than the cloud.’

The comparative construction in (9) establishes an *ordering* relation (on a scale) between two entities *x* and *y*, namely *het vliegtuig*, the so-called target of comparison, and *de wolk*, which is the standard of comparison. This ordering relation regards the gradable property *g* (*laag*), and is expressed by means of the bound morpheme *-er*, whose conventional meaning has the consequence that the degree to which *x* (*het vliegtuig*) is *g* (*laag*) exceeds the degree to which *y* (*de wolk*) is *g* (*laag*); see Kennedy (2007).

Consider next the spatial construction in (10):

- (10) [located object/figure Het vliegtuig] is **onder** [reference object/ground de wolk].
the airplane is below the cloud
‘The airplane is situated below the cloud.’

The construction in (10) establishes a (spatial-) *ordering* relation between two entities *x* and *y*. The ‘located object’ *het vliegtuig* (also called Figure) is situated in space with respect to the ‘reference object’ *de wolk* (also called Ground). The precise nature of the spatial relation is determined by the lexical meaning of the locative adposition (see Talmy 1978, Jackendoff 1983, Zwarts 2003). In the case of *onder* in (10), *het vliegtuig* is in a spatially lower position than *de wolk*.

Since both (9) and (10) encode an ordering relationship between two entities, it is not surprising that they share another grammatical property, namely the possibility of being modified by a Measure Phrase which designates the distance — on the scale of degrees (11a) or in space (11b)— between the two entities *x* and *y*. Consider for this the examples in (11):

- (11) a. Het vliegtuig is [**2 meter** lager dan de wolk].
the airplane is 2 meters lower than the cloud
- b. Het vliegtuig is [**2 meter** onder de wolk].
the airplane is 2 meters under the cloud

The interpretative relationship between comparative *-er* and spatial *-er* is also clear from minimal pairs such as (12a,b) and (13a,b):

- (12) a. Jan voelt zich de laatste tijd [**meer** gewaardeerd].
Jan feels REFL the latest time more appreciated
'Jan feels more appreciated recently.'
- b. Jan voelt zich de laatste tijd [**over**gewaardeerd].
Jan feels REFL the latest time over-appreciated
'Jan feels appreciated too much recently.'
- (13) a. Jan voelt zich de laatste tijd [**minder** gewaardeerd].
Jan feels REFL the latest time less appreciated
'Jan feels less appreciated recently.'
- b. Jan voelt zich de laatste tijd [**onder**gewaardeerd].
Jan feels REFL the latest time under-appreciated
'Jan feels appreciated less/too little recently.'

In (12a,b), it is expressed that Jan feels appreciated *above* (i.e., 'more than') a certain norm or value. In (13a,b), on the contrary, *minder* and *onder* designate that Jan feels appreciated below (i.e., 'less than') a certain norm or value. Importantly, the interpretative relationship between *meer* and *over*, and *minder* and *onder*, does not imply that they compete for the same structural position. As shown in (14), a form like *ondergewaardeerd* can be modified by the comparative morpheme *minder*. Arguably, *onder* is a prefix attached to the adjectival participle.

- (14) Jan voelt zich [**minder onder**gewaardeerd dan Els].
Jan feels REFL less under-appreciated than Els
'Jan feels less under-appreciated than Els does.'

Given the similarities between comparative *-er* in (9) and spatial *-er* mentioned above, one might draw the conclusion that *-er* in (9) is not a comparative morpheme—that is, a construction-specific property—but something “more general.” The question then arises: What could it be?

I propose that *-er* is a bound morpheme that designates *an opposition* between two elements. In other words, it is a marker of polarity (i.e., opposition). In example (9), *Het*

vliegtuig is lager dan de wolk, the opposition between x and y regards a degree to which a gradable property holds. In example (10), *Het vliegtuig is onder de wolk*, the opposition between x and y regards a spatial relation.

Importantly, if *-er* in *lager* and *onder* is one and the same bound morpheme, this implies that the compositional structure familiar from comparative adjectives like *lager* — that is, *laag + -er*— extends to spatial adpositional forms such as *onder*. Thus, the adposition *onder* has the composite structure *ond- + -er*. The structural similarity between the comparative form *lager* and the adpositional form *onder* is shown in (15).

- (15) a. [PoIP -er [AP laag]] (= *lager*)
 b. [PoIP -er [PP ond-]] (= *onder*)

If *-er* is a marker of polarity, the question obviously arises as to whether it is attested also in other linguistic expressions involving an opposition of some sort. In what follows, I will show that this wider distribution of polar *-er* can indeed be found. I will first give a few examples from Dutch that confirm the polarity status of *-er* and continue with some illustrations of polarity *-er* from other Germanic languages.

Consider the following Dutch examples:

- (16) a. Els is groot. Marie is **echter** klein.⁴
 Els is tall Marie is however small.
 ‘Els is tall. Mary, however, is small.’
 b. De wip gaat **op en neer**.
 the see-saw goes up and down
 c. De schommel gaat **heen en weer**.
 the swing goes back and forth
 d. Er werd **over en weer** gepraat.
 there was forth and back spoken
 ‘They spoke back and forth.’

In (16a), the conjunctive adverb *echter* ‘however’ marks an opposition between the contents of the preceding sentence (*Els is groot*) and the contents of the sentence in which it is contained (*Marie is klein*).⁵ The coordinate structures in (16b-d) denote a spatial opposition.

⁴ It is tempting to propose that the Dutch adversative coordinator *maar* ‘but’ also features the polarity marker *-r*, that is: *maa-r*. The two coordinands must be in some sense contrastive, as in *Niet Jan huilde maar Piet huilde* (not Jan cried but Piet cried, ‘Jan didn’t cry but Piet did.’). Etymologically, *maar* derives from Middle Dutch *nawaer* (‘were it not’); see Van der Sijs (2010). An exact reconstruction of the diachronic development from *nawaer* to *maar* falls beyond the scope of this chapter.

⁵ Historically, *echter* ‘however’ relates to the adposition *achter* ‘behind’ (Van der Sijs 2010). At a more speculative level, one might propose that *echter* is a PP which consists of the preposition *echter* and a null nominal complement. This silent complement is anaphorically related to the preceding clause. Thus, example (16a) would have the following representation: *[Els is groot]_i. Marie is [PP echter [_{xNP} Ø]_i] klein*. I will leave this issue for future research.

In (16b), this opposition regards a vertical spatial dimension (i.e., ‘up *versus* down’), in (16c, d) a horizontal spatial dimension (i.e., ‘from one side or person to the other side or person’). Interestingly, the suppletive forms *neer* and *weer* have formal variants in which the polarity marker *-er* surfaces more transparently: *neder* ‘down(wards)’ and *weder* ‘back(wards)’.

Also in other Germanic languages, the grammatical marker *-er* appears in a variety of linguistic expressions marking an opposition between two entities *x* and *y*. Consider, for example, the following English examples:

- (17) a. John is **taller** than Bill is.
 b. John is **under** the tree.
 c. I wonder **whether** he will go to the concert.
 d. His birthplace was **either** Baltimore (, Wichita) or Boston.
 e. John is smart. Bill, **however**, is not.

The comparative construction (17a) expresses an opposition between John’s length and Bill’s length, where the degree to which John is tall is higher on the scale of degrees than the degree to which Bill is. The adpositional phrase in (17b) expresses a (vertical) spatial opposition between *John* (the located object) and *the tree* (the reference object). Specifically, John is in a lower spatial position than (the top of) the tree. The wh-word *whether* in (17c) also expresses a choice between alternatives, namely: ‘he will go to the concert’ (affirmative choice) or ‘He will not go to the concert’ (negative choice). In (17d), *either* is placed in front of two or more alternatives, the last of which is introduced by *or*.⁶ The linguistic expression *however* in (17e), finally, indicates that the proposition ‘Bill is not (smart)’ contrasts with the preceding proposition ‘John is smart’. In other words, the two propositions represent alternatives, namely a positive one versus a negative one.

Let’s finally give some illustrations of the polar meaning of *-er* in German. Consider for this the following examples:

- (18) a. Franz ist [**größer** als Peter].
 Franz is taller than Peter
 b. Susi steht **hinter** dem Baum.
 Susi stands behind the tree
 c. Er war arm **aber** glücklich.
 he was poor but happy
 d. Hans kommt **oder** Hans kommt nicht.
 Hans comes or Hans comes you not
 ‘Hans will come or he won’t.’
 e. **Entweder** es funktioniert oder nicht.
 Either it functions or not

⁶ Possibly, *or* in (17d) also features the polarity marker *-r*; see <https://www.etymonline.com/word/or>.

In (18a), we have a comparative construction expressing an opposition between Franz's length and Peter's length. The adpositional phrase *hinter* in (18b) expresses a spatial opposition between *Susi* (the located object) and *dem Baum* (the reference object). The coordinate conjunction *aber* 'but' in (18c) introduces the phrase *glücklich* 'happy' that contrasts with (i.e., is in opposition with) the preceding conjunct *arm* 'poor'. The coordinate conjunction *oder* 'or' in (18d) is used to link two alternatives, namely the propositions *Hans kommt* and *Hans kommt nicht*. The linguistic expression *entweder*, finally, is used in front of the first of two (or more) alternatives.

So far, I have argued that the grammatical formative *-er* has a more widespread distribution in Germanic languages such as Dutch, English and German. It is attested not only in comparative constructions but also in adpositional (e.g., *after*), coordinate (e.g., *either*), and subordinate (e.g., *whether*) constructions. Furthermore, it was proposed that *-er* contributes the meaning property 'polarity' to the structure in which it is embedded. It marks an opposition between two units (e.g., spatial locations, degrees, or propositions).

Analyzing *-er* as an independently meaningful element implies that the linguistic expressions featuring *-er* have an internal structure, as, for example, in Dutch *ond-er* in (15b). The question then arises as to whether this structured linguistic expression is a complex word or a complex phrase. Restricting myself to Dutch, and specifically to the comparative form *langer* and the spatial form *achter*, I propose that the former represents polarity at the phrasal level (i.e., phrasal syntax), while the latter marks polarity at the word level (i.e., word syntax). In what follows, I will try to give evidence in support of this distinction.

In line with the syntactic approach to word-formation proposed among others by Embick and Noyer (2007), Harley and Noyer (1999), Marantz (1997), and De Belder *et al* (2014), I assume that categorial heads such as *n*, *a*, *v* and *p* demarcate a frontier between two different structural domains. The structural domain below the categorial head is reserved for lexical —that is, non-compositional, semantically unpredictable— meaning, whereas the structural domain above the categorial head hosts functional projections contributing compositional —that is, non-idiosyncratic, predictable— meaning. Another (related) property that distinguishes "low" (e.g., below *a*) and "high" (e.g., above *a*) grammatical formatives concerns productivity. Low grammatical formatives are not morphologically productive —that is, they apply only to a closed set of roots— whereas high grammatical formatives are.

Against the background of this distinction between word-level syntax and phrase-level syntax, I propose that spatial *-er* instantiates a low syntactic position encoding polarity formation, while comparative *-er* instantiates a high syntactic position marking polarity. Importantly, I take *-er* to be one and the same exponent in these structural environments.

Following De Belder *et al* (2014), I will refer to the low syntactic position of polar *-er* as *Lex^o*. The high position will be referred to as *Compar^o*; see Corver (2005), Bobaljik (2012). For

forms such as *lager* ‘lower’ and *onder* ‘below/under’ (see (15a,b) above), we then have the representations in (19a) and (19b), respectively:⁷

- (19) a. [ComparP -er [ap a [vlaag]]] high polar -er
 b. [pP p [LexP -er [vond-]]] low polar -er

Let’s now give some evidence in support of this distinction between “low” polarity formation and “high” polarity formation, starting with the property of morphological productivity. As shown by the examples in (20), the formation of comparative adjectives is a productive process. All gradable adjectives in Dutch can combine with the comparative morpheme *-er*. This supports the idea that comparative *-er* is a grammatical formative which heads a functional projection (ComparP) within the Extended Adjectival Projection (xAP).⁸

- (20) lang-er (‘taller’), leuk-er (‘nicer’), mooi-er (‘prettier’), zacht-er (‘softer’), ver-der (‘further’), afhankelijk-er (‘more dependent’), gehoorzaam-er (‘more obedient’), etc.

When we compare the combinatorial behavior of comparative *-er* with that of adpositional *-er*, we notice a difference. The combination P+-(e)r is a pattern which is not attested in an overall (i.e., productive) fashion. Its appearance is lexically restricted.

- (21) a. ond-er / ov-er / acht-er / voo-r / doo-r / naa-r de kast
 under over behind before through to the cupboard
 b. op(*-er) / in(*-er) / uit(*-er) / om(*-er) / bij(*-er) de kast
 on in out.of around near the cupboard

The structurally high placement of comparative *-er* and the low placement of spatial *-er* is also suggested by their different behavior when embedded in a compound expression. Consider

⁷ The question arises as to whether roots such as *vond-* (as in *onder*), *vov-* (as in *over*) and *vacht-* (as in *achter*) are ever attested elsewhere in the Dutch language system. For *vond-*, I haven’t been able to find other structural environments in which this root appears. For *vov-* and *vacht-*, and also *vuit*, the minimal pairs in (i) come to mind. It does not seem implausible to argue that the forms in (ia-c) and those in (ia’-c’) have the same root. I leave an in-depth investigation of these minimal pairs for future research.

- (i) a. *ov-er* a.’ *b-ov-en*
 ‘over/across’ ‘above’
 b. *acht-er* b.’ *b-acht-en* (dialectal)
 ‘behind’ ‘behind’
 c. *uit* c.’ *b-uit-en*
 ‘out of’ ‘outside of’

⁸ The forms *-er* (e.g. *lang-er*) and *-der* (e.g., *ver-der*) are allomorphs of the bound comparative morpheme. In Standard Dutch, the form *-der* is used when the adjectival root ends with the sound /r/.

for this, first of all, the compounds in (22); see Corver (1990:316), De Haas & Trommelen (1993:288).

- | | | | | |
|------|----|--|-----|--|
| (22) | a. | een ZWAARgewicht
a heavy-weight
'a heavy weight' | a.' | *een ZWAARdergewicht
a heavier-weight |
| | b. | een FRISdrank
a fresh-drink
'a soda' | b' | *een FRISserdrank
a fresher-drink |

The compound status of *zwaargewicht* and *frisdrank* in (22a,b) is shown by the fact that they display the stress pattern characteristic of compounds, namely stress on the first member (the adjective) of the compound word. As shown by (22a',b'), it is impossible for the adjectival member of the compound to carry comparative morphology. The ill-formedness of these patterns follows if comparative *-er* represents a syntactic layer belonging to xAP rather than a hierarchical layer at the word level. The well-formed phrases *zwaardergewicht* (23a) and *frissere drank* (23b), which form minimal pairs with the ill-formed compounds *zwaardergewicht* (22a') and *frisserdrank* (22b'), show that comparative morphology can be associated with an attributive adjectival phrase that acts as a modifier within a noun phrase.⁹

- | | | |
|------|----|---|
| (23) | a. | Dit is een zwaar gewicht maar dat is een nog <i>zwaardere</i> gewicht.
this is a heavy weight but that is an even heavier weight
'This is a heavy weight but that is an even heavier weight.' |
| | b. | Een <i>frissere</i> drank dan deze bestaat niet.
a fresher drink than this.one exists not
'There is no fresher drink than this.' |

Having shown that comparative adjectives cannot act as members of a compound structure, let us next consider the distributional behavior of spatial *-er*. As shown by the examples in (24), spatial adpositions such as *onder*, *over* and *voor* can act as left members in compound words.

- | | | |
|------|----|---|
| (24) | a. | de onderkant van de tafel
the under-side of the table
'the bottom of the table' |
| | b. | een overjas
an over-coat |

⁹ The *-e* at the end of *frissere* in (23b) is an attributive adjectival inflection. This *-e* always appears on the attributive adjective except when it modifies a neuter singular indefinite noun phrase; see e.g., *een zwaar gewicht* in (23a).

- c. de voorzijde van het huis
 the before-side of the house
 'the front of the house'

The contrast between the ill-formed patterns in (22a',b'), on the one hand, and the well-formed patterns in (24), on the other hand, suggests that comparative *-er* and spatial *-er*, even though related in meaning (viz., polarity), occupy different structural positions: comparative *-er* is a grammatical formative active in phrasal syntax, while spatial *-er* is a grammatical formative active at the level of word syntax.

Another contrast that corroborates the different structural placement of comparative *-er* and spatial *-er* comes from Dutch adjectival patterns featuring superlative morphology. Before exemplifying this contrast, I note that I follow Bobaljik's (2012:4) Containment Hypothesis, according to which the functional projection encoding the comparative property is directly contained in the functional projection encoding the superlative property. Schematically: [[[ADJECTIVE] COMPARATIVE] SUPERLATIVE]. Evidence in support of this layered structure comes from languages in which both the comparative morpheme and the superlative morpheme surface. In Slovenian, for example, the superlative prefix *naj-* attaches to the comparative adjectival form *slab-šji* (weak-CMPR), as in *naj-slab-šji* (SPRL-A-CMPR); see Bobaljik (2012:83). According to Bobaljik, the superlative form *-st* and the comparative form *-er* never co-occur in a language like English: *tall(*-er)-st*. He assumes that the comparative morpheme has a zero-exponent in those cases: *tall-∅-est*.¹⁰

Turning now to Dutch again, we see in (25) that Dutch, just like English, does not permit co-occurrence of the comparative morpheme *-er* and the superlative morpheme *-st*:

- (25) a. Dit is de lang(*-er)-st-e man.
 this is the tall-CMPR-SPRL-INFL man
 'This is the tallest man.'
 b. [[[[[Vlang] a^o] *-er / ^{OK}∅] -st] -e]

Interestingly, as shown by the attributive modifiers *onderste* and *voorst* in (26), Dutch has patterns in which the spatial forms *onder* 'under' and *voor* 'before' combine with the superlative morpheme *-st*.¹¹ The morpheme *-e* represents the attributive adjectival inflection:¹²

¹⁰ In Kayne (2022), the English superlative morpheme *-est*, as in *tall-est*, is analyzed as bi-morphemic, with *-e* being a separate morpheme: *tall-e-st*.

¹¹ The superlative morpheme is also found on spatial attributive modifiers ending in *-en*, as in *de bovenst-e verdieping* (the up-SPRL-INFL floor, 'the uppermost floor') and *de binnenst-e cirkel* (the inside-SPRL-INFL circle, 'the innermost circle')

¹² Such forms occur only in attributive position. They can't be used predicatively:

- (i) *Deze steen is 't onderst(-e).
 this stone is 't under-SPRL
 'This stone is the lowest.'

- (26) a. Dit is de ond-er-st-e steen.
 this is the und-er-SPRL-INFL stone.
 ‘This is the bottom stone.’
- b. Hij is de voo-r-st-e man.
 he is the before-r-SPRL-INFL man
 ‘He is the front man.’

The co-occurrence of spatial *-(e)r* and superlative *-st* suggests that the former occupies a different structural position. Specifically, I propose that it instantiates the Lex-head, as in (27):

- (27) [_{SPRLP} SPRL^o (= -st) [_{CMPRP} CMPR^o [_{aP} a^o [_{LexP} -er [vond-]]]]]]

The attributive form *onderste* results from a sequence of head-movement steps: the root *vond-* first raises to Lex^o to create the complex form [*vond-[er]*]. This form subsequently head-moves to the categorial head a^o, which yields an adjectival expression: [[*vond-[er]*] a^o]. This form combines with the silent comparative head CMPR^o, yielding the pattern [[[*vond-[er]*] a^o] CMPR^o], which in turn combines with superlative *-st*, as in [[[[*vond-[er]*] a^o] CMPR^o] -st].

If comparative *-er* and adpositional *-er* are taken to be the same type of grammatical formative, though structurally at different levels of attachment, one may wonder whether “comparative” *-er* is ever found at the word level. At this point, it is interesting to observe that in certain dialects of Dutch, but also in colloquial (spoken and written) language (see (28) below), doubling patterns of the type A+ *-er* + *-(d)er* can be found; see Corver (2005). Opprel (1896:33), for example, mentions the use of form such as *groterder* (bigger-er, ‘bigger’) and *beterder* (better-er, ‘better’) in the dialect of Oud-Beierland, and Overdiep (1936: 271) notes the pattern *völ warmerder* (much warmer-er, ‘much warmer’) for the Achterhoek-dialect.¹³ The text fragment in (29) exemplifies the use of the doubling pattern *dikkerdere* (thick-er-er, ‘thicker’) in Sliedrecht Dutch:

- (28) Deze longsleeve heeft een zachte touch en is gemaakt van een wat
 this longsleeve has a soft touch and is made of a somewhat

dikkerdere stof dan Smafolk meestal gebruikt.
 thick-er-er-INFL cloth than Smafolk usually uses
 ‘This long-sleeved T-shirt has a soft touch, and is made of a slightly thicker cloth than Smafolk usually uses.’

<https://www.jippiejajee.nl/a-46308098/smafolk/t-shirt-long-smafolk-spaceship-grey/#description>

¹³ *Beter* ‘better’ is the irregular comparative form of *goed* ‘good’.

(29) Daer bovenop kwamme fijne kachelhoutjies. Daernae wà *dikkerdere* en
 there on.top came small firewood-DIM-PL there.after what tick-er-er-INFL and

dan nog 'n paar bloksies hout.

then again a few pieces wood

'Small pieces of firewood were placed on top of that. Some thicker pieces of wood were added after that, and finally a few wooden blocks were added.'

<https://www.historie-sliedrecht.nl/wp-content/data/dialect/dialectverhaaltjes/2007/DLCT737.pdf>

These doubling comparative forms, which feature *-er* twice, can be assigned the base structure in (30), here exemplified for *dikkerder*. The surface form *dikkerder* results from a sequence of head-movement steps: the root *vdik* raises to Lex⁰ to create the complex form *[vdik [er]]*. This form subsequently head-moves to the categorial head *a*⁰, which yields an adjectival expression: *[[vdik[er]] a⁰]*. This form combines with the functional head CMPR⁰, yielding the pattern *[[[vdik[er]] a⁰] der]*.¹⁴

(30) [_{ComparP} -(d)er [_{aP} a [_{LexP} -er [vdik]]]] *dikkerder*

So far, I have shown that the combination P+*-er* (see (19b)), as opposed to the pattern A+*-er* (see (19a)), is a non-productive pattern; that is, its appearance is lexically restricted.¹⁵ Let's next turn to the second property of lexical *-er*, namely its non-compositional meaning. A clear illustration comes from the examples in (21b). As shown by these examples, the *-er*-adpositions are impossible in phrasal syntactic configurations. Interestingly, however, some of them are found at the lexical level:

¹⁴ Lexical *-er* is also found in verbalizations such as *verslechteren* (*ver*-bad-CMPR-INF, 'to deteriorate'), *verminderen* (*ver*-less-CMPR-INF, 'to reduce/lessen'), *verwilderen* (*ver*-wild-CMPR-INF, 'to run wild'); see De Haas and Trommelen (1993:288).

¹⁵ Two reviewers rightly point out that there is no doubling equivalent of the type *dikkerder* in the adpositional domain; that is, doubling patterns such as *onderder* (*under*-er-er) and *overder* (*ov*-er-er) are impossible. The question arises as to why patterns featuring both a low (i.e., lexical) *-er* and a high (i.e., functional head) *-er* are impossible. If the assumption is correct that adpositional *-er* is an incarnation of low *-er*, then the answer to the impossibility of *onderer* and *overer* must relate to the functional head in the Extended Adpositional Projection (xPP). One line of thinking would be to say that the functional head never expones as *-er*, since the Spec-position of this functional head can be realized by a so-called R-pronoun, as in *eronder* (*there*-under, 'under it') and *erover* (*there* over, 'over it'); see Van Riemsdijk (1978). Possibly, there is some sort of doubly-filled XP effect: if the Spec-position of the functional head can be filled by an R-pronoun, then the functional head itself cannot be realized as *-er* and must remain silent. The formal similarity between the R-pronoun and the "R-element" on adpositions such as *onder* and *over* is in need of more in-depth investigation. I leave this for future research.

- (31) a. de oppervlakte 'the surface'
 b. het innerlijk 'the mind; the heart; someone's inner side'
 c. het uiterlijk 'the appearance, the looks (of someone)'

Although one may still recognize some of the comparative meaning in prefixes such as *opper* 'upper', *inner* 'inner', and *uiter* 'outer', it is quite clear that the meaning of these words has become more abstract, as is also clear from the English translations.

So far, I have argued that comparative *-er* is not a construction-specific property but rather a cross-constructional property, where the notion 'cross-constructional' applies to phrasal syntax and word syntax. Specifically, *-er* can be found in "constructions" that express an opposition (polarity) of some sort; for example, opposition as regards the degree to which a property holds, as in the case of comparative *-er*, or opposition as regards a spatial location, as in the case of adpositional *-er*.

If comparative *-er* encodes polarity (i.e., an opposition of degrees), then the existence of comparative doubling constructions like (32a,b) in colloquial speech and dialectal varieties of Dutch is not unexpected.

- (32) a. Vrouwen zijn in deze tijd meer vooruitstrevender [...].
 women are in this time more progressive-CMPR
 'These days, women are more progressive.'
<https://www.zwangerschapspagina.nl/threads/kunnen-wij-moeders-van-nu-minder-aan-dan-vroeger.613554/page-4>
- b. Ik pleit voor een minder snellere doorstroming van scheidsrechters.
 I plea for a less fast-CMPR-INFL flow of referees
 'I would be in favor of a less rapid flow of referees (to higher soccer divisions).'
<https://www.volkskrant.nl/sport/scheidsrechter-steenhuis-bedum-is-sympathiek-en-schrijft-een-boek~b62eb52f/?referrer=https://www.google.com/>

In line with Corver (2005:171), I propose that it is the free comparative morpheme (*meer*, *minder*) which determines the contents of the comparison, that is, 'more' (degree_i > degree_k) versus 'less' (degree_i < degree_k). As shown in (33a), I assume that this free comparative morpheme occupies the specifier-position of the functional head *-er*, which encodes the interpretive property 'polarity'. Furthermore, following Corver (2005) again, I assume that in Standard Dutch, which excludes comparative doubling, the specifier position is occupied by a silent comparative morpheme MEER, as in (33b). Alternatively, the polarity marker remains silent (ER), and the free comparative morpheme surfaces, as in (33c).

- (33) a. [_{CMPR} meer [_{CMPR'} -er [vooruitstrevend]]] 'meer vooruitstrevender'
 b. [_{CMPR} MEER [_{CMPR'} -er [vooruitstrevend]]] 'vooruitstrevender'
 c. [_{CMPR} meer [_{CMPR'} -ER [vooruitstrevend]]] 'meer vooruitstrevend'

In summary: the aim of this section was to show that so-called comparative *-er* is not a construction-specific property. It was claimed that this bound morpheme is attested also in other structural environments, among which (spatial) adpositional structures. It was proposed that “comparative” *-er* expones a high (i.e., phrase-level) head-position while “spatial” *-er* expones a low (i.e., word-level) head-position. Importantly, in both structural configurations, *-er* encodes the grammatical property of polarity.

3. Reflections on the standard marker *dan* through a modular lens

This section addresses the following question: What is the grammatical nature of the standard marker *dan* ‘than’? Traditionally, *dan* is analyzed as a conjunctive or adpositional element that typically appears in comparative constructions like *Jan is groter dan Peter* ‘Jan is taller than Peter’. In other words, *dan* has often been treated as a construction-specific property.¹⁶ In this section, I aim to show, however, that “comparative” *dan* has a wider distribution and is also attested in other structural environments, that is, structures that do not display any comparative morphology. An analysis will be proposed according to which this “generalized” *dan* is a pronominal element embedded in a larger adpositional phrase. I will come to this analysis via a number of intermediate steps. A road map may therefore be useful.

Section 3.1 starts off by showing that the standard marker *dan* cannot combine with an R-pronoun: **daar dan* (there than, ‘than that’). Since adpositions (i.e., P) typically can occur with R-pronouns, the ill-formedness of *daar dan* suggests that *dan* is not an adposition. In section 3.2, however, it will be shown that there are more adpositional structures in which R-pronouns can’t occur; for example, **daar namens* (there on.behalf.of, ‘on behalf of that’). It will be claimed that the ill-formedness of this pattern is due to complementary distribution: *daar* and *namens* compete for the same syntactic position, namely [Spec,PP]. This raises the question as to whether the ill-formedness of *daar dan* could have the same cause; specifically, *daar* and *dan* are in competition with each other for [Spec,PP]. In section 3.3, it will be shown for the temporal “adverbs” *dan* ‘then_{FUTURE}’ and *toen* ‘then_{PAST}’, and also for locative *daar* ‘there’, that these so-called adverbs are actually pro-nominals that move from a complement position of P to the Specifier-position of P. In section 3.4, it will be proposed that this pro-nominal analysis of *dan* extends to the so-called standard marker *dan*. As a matter of fact, it is argued that temporal *dan* and the standard marker *dan* are one and the same element, namely a d-pronoun. This d-pronoun has a topic-shifting effect. In section 3.5, it will be proposed that, in clausal comparatives, *dan* originates in a clause-internal position and is moved to [Spec,CP]. In so-called phrasal comparatives, *dan* is a pronoun that has shifted from a complement position of P to [Spec,PP]. This analysis

¹⁶ Compare in this respect the passive *by*-phrase, which was also treated as a construction-specific property. See the transformational rule in (2).

implies that *dan* is in competition with the R-pronoun *daar* ‘there’, whence the ill-formedness of *daar dan*.

3.1 (A problem for) an adpositional approach to *dan*

When we examine the grammatical behavior of the Dutch standard marker *dan*, an adpositional approach to the standard marker *dan* seems implausible at first sight. A phrase containing the standard marker *dan* turns out to display syntactic behavior which is very different from that of an adpositional phrase headed by the adposition *van*.

As exemplified in (34), adpositions like *van* have a number of characteristic properties. First of all, they can combine with a so-called R-pronoun (e.g., *daar*), which typically appears in a position to the left of P (Van Riemsdijk 1978); see (34b). Secondly, as shown in (34c), the R-pronoun can be moved out of the PP, leaving behind the adposition (so-called P-stranding). Finally, the PP can be part of an attributive AP under the condition that PP precedes the adjective; see Williams’s (1982) Head Final Filter.

- (34)
- | | | |
|----|---|---------------------|
| a. | De hond is bang [van die slang].
the dog is afraid of that snake | |
| b. | De hond is bang [daar van].
the dog is afraid there of
‘The dog is afraid of it/that.’ | R-pronominalization |
| c. | Waar is deze hond bang [waar van]?
where is this dog afraid of
‘What is this dog afraid of?’ | P-stranding |
| d. | een [_{AP} daarvan bange] hond
a there-of afraid-INFL dog
‘a dog which is afraid of that’ | pre-adjectival PP |

When we next consider the grammatical behavior of the *dan*-phrase, we observe that none of these adpositional characteristics is attested. In other words, *dan* does not display any P-like behavior.

- (35)
- | | | |
|----|---|------------------------|
| a. | Deze slang is langer [dan die krokodil].
this snake is long-er than that crocodile
‘This snake is longer than that crocodile.’ | |
| b. | *Deze slang is langer [daar dan].
this snake is longer there than
‘This snake is longer than that one.’ | No R-pronominalization |

- c. ***Waar** is deze slang langer [-- **dan**]? No *dan*-stranding
 where is this snake longer than
 ‘What is this snake longer than?’
- d. *een [**dan deze slang** langere krokodil] No pre-adjectival *dan*-phrase
 a than this snake longer-INFL crocodile
 ‘a crocodile which is longer than this snake’

Given the contrast between (34) and (35), it is tempting to conclude that the *dan*-phrase is not a PP. We shouldn’t jump to conclusions, however. There turn out to be more adpositional-like phrases that display deviant behavior.

3.2 An adpositional pattern that blocks R-pronominalization

Consider, for example, lexical items such as *namens* (name-*en-s*, ‘on behalf of’), *krachtens* (force-*en-s*, ‘by virtue of’), and *tijdens* (time-*en-s*, ‘during’), which, traditionally, are analyzed as adpositions.¹⁷ There is a good reason, though, for not interpreting those lexical items as genuine adpositions, namely the fact that they can’t combine with an R-pronoun, as exemplified in (36) for *namens*:

- (36) a. Jan sprak [**namens** de regering].
 Jan spoke name-*en-s* the government
 ‘Jan spoke on behalf of the government’
- b. *Jan sprak [daar **namens**].

In Corver (2022), it is proposed that the pattern *namens de regering* represents a Construct State pattern, with *namens* being the Construct State nominal (the possessum) and *de regering* being the possessor.¹⁸ As shown in (37a), *de regering* occupies the specifier position

¹⁷ Notice that synthetic adpositions such as *namens/tijdens/krachtens* have periphrastic counterparts featuring a “real” adposition: *in naam van X* (in name of X, ‘on behalf of X’), *ten tijde van X* (at time of X, ‘during’), *uit kracht van X* (from force of X, ‘by virtue of X’).

¹⁸ The Construct State construction is a type of possessive pattern which is familiar from studies on Modern Hebrew (e.g., Ritter 1988). For an example, see (i):

- (i) beyt ha-mora
 house the-teacher
 ‘the teacher’s house’

The noun phrase *beyt ha-mora* has the following characteristic properties: firstly, the head of the nominal construction is head initial (*beyt*); it can’t be preceded by a definite article: **ha-beyt ha-mora*. Secondly, the noun directly precedes a noun phrase; there is no mediation of any (dummy) preposition (e.g., *shel* ‘of’). Thirdly, phonological alternations are found between the construct state form (e.g., *beyt*) and the free state (i.e., non-construct state) form (e.g., *bayit* ‘house’).

For the Construct State status (or origin) of certain adpositions, see Longobardi’s (2001) analysis of the French preposition *chez* ‘at’, as in *chez Marie* ‘with Mary / at Mary’s place’.

of a functional projection encoding possession (i.e., PosP). The surface pattern is derived by means of phrasal movement of the possessum *namens* across the possessor (*de regering*), as in (37b). Specifically, *namens*, which is analyzed as an nP in Corver (2022), raises to [Spec,DP], the edge position of the extended nominal projection (xNP).¹⁹ It subsequently moves on to [Spec,xPP], which is a potential landing site for displaced material in Dutch (Van Riemsdijk 1978).

- (37) a. [PP Spec [P' P \emptyset [DP Spec [D' D [PosP de regering [Pos' Pos [NP namens]]]]]]]
 b. [PP [NP namens] [P' P \emptyset [DP namens [D' D [PosP de regering [Pos' Pos namens]]]]]]

With nP *namens* occupying [Spec,xPP], the ill-formedness of the patterns *daar namens* in (39b) follows straightforwardly: the R-pronoun *daar* cannot occupy [Spec,PP], since this position is already taken by *namens*. In short, we have a clear case of complementary distribution. This brings us to the following question: Could the ill-formedness of the pattern *daar dan* in (35b) also be due to complementary distribution, just like the ill-formed pattern *daar namens* in (36b)? That is, could it be that *dan* and *daar* compete for the same structural position? In sections 3.3-3.5, I will give a positive answer to this question.

3.3 Temporal and locative pro-forms in [Spec,PP]

My answer to the question raised at the end of the previous section will build on Postal's (1966) insight (for English) that "adverbs" such as locative *there* (Dutch: *daar*), temporal *then* (Dutch *dan_{future}*) and manner *thus* (Dutch *dus*) are actually nominal pro-forms with an inner structure: [*there*_{DET} [PLACE_{Noun}]], [*then*_{DET} [TIME_{Noun}]] and [*thus*_{DET} [WAY]]. Collins (2007), adopting Postal's (1966) insight that locative adverbs such as *here* and *there* are nominal expressions with an inner structure, adds an additional ingredient to the structural analysis of (locative) adverbs.²⁰ He proposes that the nominal expression *there* + PLACE must raise to

¹⁹ Corver (2022) proposes that *namen* is a complex word consisting of the root *vna(a)m* and the bound morpheme *-en*. Specifically, he takes *-en* to be a "low" bound morpheme, that is, a morpheme structurally located in between n(P) and the root. Schematically: [*nP* n [*LexP* *-en* [*vna(a)m*]]]. The element *-s* of *namens* is an exponent of the categorial node *n*. Head movement of the Root to *-en*, yields *namen*, and subsequent head-movement of the amalgam *namen* to *n* yields *namens*.

²⁰ See also see also Kayne (2004a), and Caponigro and Pearle (2009) for the claim that "adverbs" such as *here*, *there*, *et cetera* are nominal expressions. As Kayne (2004a) points out, there are reasons for decomposing *there/then/thus* into *th-ere/th-us/th-en*. In the context of this chapter, I will abstract away from this more fine-grained decomposition of these adverbial elements.

the specifier position of an adpositional phrase (PP) in which it is embedded.²¹ Thus, the surface form *there* has the underlying structure in (38a) and the derived structure in (38b):²²

- (38) a. [PP [P' IN [NP *there* + PLACE]]]
 b. [PP [NP *there* + PLACE] [P' IN [~~NP *there* + PLACE~~]]]

It is the silent adposition IN in (38) which encodes the locative-spatial information. The selected nominal complement *there* + PLACE represents the Ground (i.e., the located object).

Extending this analysis to Dutch, “adverbs” such as locative *daar* (39a), temporal *dan* (40a) and *toen* (41a) have the derived structure in (39b), (40b), and (41b), respectively:

- (39) a. Jan stond **daar**.
 Jan stood there
 ‘Jan stood there (= at that place)’
 b. Jan stond [PP [**daar** + PLACE] [P' P_{LOC} ____]]
- (40) a. Jan zal **dan** vertrekken.
 Jan will then leave
 ‘Jan will leave then (= at that time)’
 b. Jan zal [PP [**dan** + TIME] [P' P_{TEMP} ____]]
- (41) a. Jan was **toen** ziek.
 Jan was then ill
 ‘Jan was ill then (= at that time)’
 b. Jan was [PP [**toen** + TIME] [P' P_{TEMP} ____]] ziek.

The placement of “bare-adverbial” *daar* in [Spec,PP] obviously draws a nice parallel with locative adpositional forms such as *daarachter* (there-behind, ‘behind that’) and *daarop* (there-on, ‘on that’), the only difference being the exponence of P: In (39b), P remains silent, but, in *daarop/daarachter*, P has a lexicalized form.²³

²¹ As Collins (2007) points out, a language like Dutch provides clear evidence in support of such PP-internal movement operations. As shown in Van Riemsdijk (1978), certain pronouns move from the complement position of P to the specifier of P, where they turn into what Van Riemsdijk calls ‘R-pronouns’, where ‘R’ refers to the *r*-sound that is part of these pronouns: e.g., *daar op* (there on, ‘on that’), *waar op* (where on, ‘on what’), *ergens op* (somewhere on, ‘on something’), *hier op* (here on, ‘on this’). See also Koopman (2000).

²² I abstract away here from issues regarding the ban on movement operations that are too local (e.g., from the complement position of X to the specifier position of X). For discussion of so-called ‘anti-locality’, see Abels (2003) and Grohmann (2003).

²³ A reviewer notes that there is more to the contrast between *daar* as a locative “adverb” and its use as an adpositional object (e.g., *daarachter*). In the context of an overt P, *daar* refers to an entity; for example, a barn. In contrast the “adverb” *daar* refers to a place. However, if it is assumed in the spirit of Kayne (2005b: chapter 4) that *daar* has the inner structure DAT *daar* ENTITY (that there entity, ‘that thing over there’), where DAT and DAAR are silent elements, the “adverb” *daar* has an entity reading as well. This entity reading is also clear from an example like (i), where *daar* refers to the entity that corresponds to the city of New York:

Empirical support for the PP-internal displacement of such pro-forms comes from the minimal pair in (42); see Corver (2017).

- (42) a. De baby huilde ^{OK}[*net* na de donderslag] / *[na de donderslag *net*].
 the baby cried just after the thunderclap / after the thunderclap just
 b. De baby huilde *[*net* toen] / ^{OK}[toen *net*].²⁴
 the baby cried just then / then just
 ‘The baby cried a minute ago.’

As shown in (42a), the modifier *net* ‘just’, which acts as a modifier of the temporal PP *na de donderslag*, must precede the adposition *na* and its complement *de donderslag*.

Interestingly, when a temporal pro-form like *toen* is used, as in (42b), the linear order of the modifier (*net*) and the modifiee (*toen*) is inverted: *toen* must precede *net*. This inverted word order directly follows from an analysis in which the pro-form *toen* undergoes displacement from the complement position of (silent) P to the specifier-position of P, as in (43b). Example (43a) represents the structure of the sequence *net na de donderslag*.²⁵

- (43) a. De baby huilde [_{PP} Spec [_{P'} *net* [_{P'} na [de donderslag]]]].
 b. De baby huilde [_{PP} **toen** [_{P'} *net* [_{P'} P [**toen**]]]].

Notice that the derivation in (43b) is quite along the lines of Van Riemsdijk’s (1978) analysis of PP-internal displacement of R-pronouns:

- (44) a. [_{PP} Net achter het gebouw] ontplofte er een bom.
 right behind the building exploded there a bomb
 ‘A bomb exploded right behind the building.’
 b. [_{PP} Daar net achter ~~dat~~] ontplofte er een bom.
 there right behind exploded there a bomb
 ‘A bomb exploded right behind it.’

-
- (i) Jan kent *New York* goed. Hij is *daar* geboren.
 Jan knows New York well he is there born
 ‘Jan knows New York well. He was born there.’

²⁴ It should be noted that the form *net toen* in (42b) is well-formed when it has the reading ‘exactly at that moment’. Crucially, it can’t have the recent past reading, that is: ‘just then/a minute ago’. Example (i) gives a nice illustration of the use of *net toen* (with the meaning ‘exactly at that moment’). It should be noted that *toen* must carry emphatic stress (here represented by small capitals) in (i):

- (i) Marie wilde weggaan maar [*net TOEN*] ging de telefoon.
 Marie wanted to.leave but exactly then rang the phone
 ‘Marie wanted to leave but right that moment the phone rang.’

²⁵ I use the simplified structures in (43) and (44). As shown in Koopman (2000) and Den Dikken (2010), the Dutch xPP has a more articulated structure.

Adopting the idea that “adverbs” such as *daar* ‘there’, *dan* ‘then_{FUTURE}’, and *toen* ‘then_{PAST}’ are nominal expressions that occupy a specifier position within xPP, I will return in section 3.4 to the grammatical nature of the standard marker *dan*, which is found in comparative constructions.

3.4 The standard marker *dan* as a topic-shifting d-pronoun

Undeniably, the standard marker *dan* is homonymous with the temporal pro-form *dan* in (40), which denotes a temporal point of time: ‘at the time’. In traditional grammar, these two instances of *dan* are treated as different lexical items of the Dutch lexicon. Rather than interpreting the multifunctionality of *dan* as a lexical matter, I take the position that there is only a single lexical item *dan*. Its multifunctionality —that is, its different semantic readings— is a consequence of the different structural environments in which *dan* appears; more specifically, the type of adpositional phrase (PP) in which *dan* is embedded, and the structural level of attachment of the containing PP. In what follows, I will try to briefly illustrate this “structural meaning” of the pro-form *dan*.

Let’s first have a look at the variety of meanings that can be associated with *dan*, that is, its multifunctionality. Consider for this the examples in (45):

- (45) a. Op 2 juni komt de koning naar ons dorp. *Dan*₁ ben ik in Parijs.
 On 2 June comes the king to our village then am I in Paris
 ‘On June 2nd the king will visit my village. I’ll be in Paris then (= on that day).’
- b. Jan heeft een baby en *dan*₂ kun je niet zomaar van huis weg.
 Jan has a baby and then can you not just.like.that from home away
 ‘Jan has a baby and, in such a situation, you can’t just leave home.’
- c. Jan is gezakt. Hij heeft *dan*₃ ook niet gewerkt.
 Jan has failed he has then also not worked.
 ‘Jan failed the exam. It’s his own fault; he didn’t work for it.’
- d. Jan heeft twee honden, drie katten en *dan* nog een kanarie.
 Jan has two dogs three cats and then PRT a canary
 ‘Jan has two dogs, three cats, and in addition to that he has a canary.’

In (45a), *dan* refers to a future point in time: ‘at that time’. In this example, this moment is identical to the point in time expressed by the PP *op 2 juni* in the preceding sentence. In (45b), *dan* refers to the state of affairs represented by the first clausal conjunct (*Jan heeft een baby*), and can be paraphrased as ‘in that situation/case’. In (45c), *dan* emphasizes an inference being drawn; what is stated in the second clause (i.e., Jan’s lack of preparation for the exam) is connected in some way (e.g., consequence + cause) to what is stated in the

preceding clause (i.e., Jan failed the exam). In this example, the element *dan* can be paraphrased as ‘according to that / as may be inferred’. In (45d), finally, *dan* introduces the conjunct (*nog*) *een kanarie*, which is part of the coordinate structure *drie honden, twee katten en dan nog een kanarie*. The *dan*-phrase has the meaning ‘with that / in addition to that/ besides’.²⁶

I assume that the adpositional analysis of temporal *dan* given in (46) can be generalized to the different uses of *dan* in (45). I further make the assumption that the meaning differences follow from the inner and outer syntactic configuration in which *dan* figures; specifically, what kind of (silent) noun does D⁰ take as its complement, and what kind of silent adposition heads the PP. For example, I take temporal *dan* in (45a) to have the structure in (46), and “situational” *dan* in (45b) to have the structure in (47):

- (46) a. [PP P_∅ [DP dan [TIME]]] base structure
 b. [PP [DP dan [TIME]] [P' P [~~DP dan~~ [TIME]]]] derived structure
 ‘on that moment’
- (47) a. [PP P_∅ [DP dan [SITUATION]]] base structure
 b. [PP [DP dan [SITUATION]] [P' P [~~DP dan~~ [SITUATION]]]] derived structure
 ‘in that situation/case’

The pro-form *dan* in (45a-d) behaves like an anaphor. For its interpretation, it is dependent on an antecedent expression in the discourse context.²⁷ In (45a), for example, *dan*₁ enters into an anaphoric relationship with the temporal antecedent *op 2 juni* in the preceding clause, and in (45b), *dan*₂ refers to the state of affairs (‘John’s having a baby’) expressed by the preceding clause. This use of *dan* can be paraphrased as: ‘in that situation’. Following Van Kampen’s (2010; 2012) analysis of the Dutch argumental d-pronouns *die* ‘that_[-neuter]’ and *dat* ‘that_[+neuter]’, I take the d-pronoun *dan* to have a topic-shifting effect: it takes a non-topic phrase from the preceding sentence as its antecedent, and introduces it as the topic of the new sentence. This topic-shifting effect is exemplified in (48) for the d-pronoun *die*, and in (49) for the d-pronoun *dan*:

- (48) Ik ontmoet op 2 juni **de president van Frankrijk**. **Die** ken ik nog uit mijn jeugd.
 I meet on 2 June the president of France that knew I still from my youth
 ‘On June 2nd, I’ll meet the president of France. I know him from my youth.’

²⁶ This use of *dan* can be replaced by Dutch *daarbij* (there.by, ‘with that/in addition to that’).

²⁷ *Dan* can also have a situational referent. Suppose two students are waiting for another student to join them (e.g., for having a beer in a pub), and this third student does not show up. In that case, one of the two students could say: “OK, dan gaan we maar!” (OK, then go we PRT, ‘OK, let’s go then.’ The d-pronoun *dan* refers to the situational absence of the third student.

- (49) Ik ontmoet **op 2 juni** de president van Frankrijk. **Dan** ontmoet ik ook zijn vrouw.
 I meet on 2 June the president of France then meet I also his wife
 ‘On June 2nd, I’ll meet the president of France. Then I’ll also meet his wife.’

In (48), the d-pronoun *die* enters into an anaphoric relationship with the antecedent *de president van Frankrijk*, which represents the focus of the first clause. The subject *ik* ‘I’ is the topic of the first sentence. In the second sentence, topic shift takes place: *die* becomes the topic of the discourse. In (49), we find a similar shift but in this case topic-shift applies to a phrase denoting time: the d-pronoun *dan*, which is anaphorically related to the temporal non-topic *op 2 juni*, becomes the topic of the second clause.

Interestingly, this obviative (topic-shifting) effect of the d-pronoun *dan* can also be found in examples where *dan* has a contrastive-comparative meaning (see also Overdiep 1936). Consider, for example, the discourse fragment in (50):

- (50) A: Als krantenjongen moet je vroeg opstaan.
 as paperboy must you early get.up
 ‘As a paperboy, you need to get up early.’
 B: **Dan** moet je BAKKER wezen! Die staat pas echt vroeg op!
 then must you baker be-INF that.one gets but really early up
 ‘Compare this with someone who works as a baker. He really gets up early!’

In Speaker A’s utterance, the weak pronoun *je*, which generically refers to the class of paperboys, functions as the topic of the utterance; it is what the sentence is about. The verbal expression (VP) *vroeg opstaan*, in which *vroeg* acts as a temporal modifier, fulfills the information-structural role of Focus; it introduces new information about paperboys. The d-pronoun *dan* in Speaker B’s utterance is anaphorically linked to the information ‘getting up early’, as expressed by the VP in the preceding clause. The d-pronoun functions as the topic of speaker B’s utterance, and the contrastive focus on *bakker* formally marks the contrastive-comparative relation with the proposition ‘As paperboy, you need to get up early’. Notice that *dan* in (50B) occupies the first position of the clause, that is, the position preceding the finite verb (*moet*), which occupies the second position (i.e., C⁰) of the main clause as a result of movement of the finite verb (so-called Verb Second):

- (51) [_{CP} **Dan** [_C moet [_{TP} je ~~dan~~ bakker wezen moet]]]

In (51), the comparative-contrastive *dan*-phrase introduces an entire sentence. As shown in (52), *dan* can also be followed by a non-clausal constituent:

- (52) A: Jij kunt mooi zingen!
 you can well sing
 ‘you can sing well!’

B: Nee, **dan** mijn ZUS! Die kan pas mooi zingen!
 no then my sister that.one can PRT beautifully sing
 ‘Well, my sister, she really can sing very beautifully!’

In (52), Speaker A makes a statement about an ability of the addressee (*jij* ‘you’), who functions as the topic of the sentence. This ability corresponds to the information presented by the VP, that is: *mooi zingen* ‘sing beautifully’. Speaker B’s reply contains the sequence *dan mijn ZUS*, where *dan* represents the topic-shifting d-pronoun and *mijn ZUS* the focalized (noun) phrase. I take *dan* to be anaphorically linked to the information ‘sing beautifully’ (*mooi zingen*), encoded by the VP in Speaker A’s utterance. I propose that derivation of the pattern *dan mijn ZUS* involves displacement and ellipsis. Specifically, I take this pattern to be the reduced variant of a clause like (53):

(53) Nee, dan moet je mijn ZUS horen!
 No then must you my sister hear
 ‘Well, in that case (i.e., singing beautifully) you should hear my sister!’

Reduction (i.e., elision of clausal material) takes place after two displacement operations have taken place: firstly, topicalization of *dan* to [Spec,CP]; secondly, focus fronting of the noun phrase *mijn ZUS* to the specifier position of a Focus Projection. The derived representation is depicted in (54):

(54) [_{CP} **Dan** [_C C [_{FoCP} mijn ZUS [_{FoC} Foc ~~je dan mijn zus horen moet~~]]]]

Let’s now move from the comparative-contrastive constructions in (50B) and (52B) to the “canonical” comparative construction (clausal and phrasal) in Dutch.

3.5 The standard marker *dan* in “canonical” comparative constructions

Consider the comparative construction in (55), which features the standard marker *dan*:²⁸

(55) Jij kunt MOOler zingen dan mijn ZUS zingt.
 you can beautiful-CMPR sing than my sister sings
 ‘You can sing more beautifully than my sister does.’

I propose that the standard marker *dan* in (55) is the same type of expression as the *dan*-tokens in (45), (50B) and (52B). Thus, it is a d-pronoun embedded within a PP with an adverbial function. In line with the discussion in section 3.4, the d-pronoun *dan* has a topic-shifting effect. I assume that it takes the degree to which x (the addressee) sings beautifully as its antecedent. This degree is associated with the gradable adjective *mooi*, which carries

²⁸ Recall that I take *mooi-er* to have the more abstract structure [_{PolP} MEER [_{Pol'} Pol^o (= -er) [*mooi*]]].

focus accent in the main clause (represented here by capital letters). The d-pronoun *dan* functions as a topical element in the embedded clause. It can be paraphrased as “to that degree/amount”. In line with this adpositional paraphrase, I assume that this degree/amount reading of *dan* is encoded by the structure in (56), where (56a) is the base structure and (56b) the derived structure:²⁹

- (56) a. [PP P_∅ [DP dan [DEGREE]]] base structure
 b. [PP [DP **DAN** [DEGREE]] [P' P_∅ [~~DP dan~~ [DEGREE]]]] derived structure

The sentence in (55) can now be paraphrased as follows: “the degree to which *you* sing beautifully exceeds (i.e., silent MORE) the degree to which my sister sings beautifully.”

Just as with the previously discussed clause-initial *dan*-tokens, I take *dan* in (55) to have been moved to [Spec,CP], as in (57):

- (57) Jij kunt [MOOler] zingen [CP **DAN** [TP mijn ZUS ~~dan~~ zingt]].

In so-called phrasal comparatives like *Jij kun MOOler zingen dan mijn ZUS* (‘You can sing more beautifully than my sister’), we have the same type of derivation as in (54); that is, the topical element *dan* moves to [Spec,CP], and the focalized phrase *zijn ZUS* undergoes Focus fronting to [Spec,FocP]. The rest of the embedded clause is silent as a result of ellipsis. Schematically:³⁰

²⁹ See Postma (2006) for an interesting diachronic perspective on the Dutch standard marker *dan* ‘than’. He presents strong arguments for a decompositional analysis of *dan* in earlier stages of Dutch. Specifically, *dan* consists of *da* and a negative particle *ne* ‘niet’: *da-n*. Even though his analysis of *dan* is clearly different from the one proposed in this chapter, there may be an interesting link via the concept of polarity, which also plays a role in his analysis of *dan*. I would like to thank a reviewer for pointing out this potential link between Postma’s analysis and my analysis.

³⁰ Certain Dutch dialects use the lexical element *of* to introduce the “*dan*-phrase”:

- (i) Moar ‘k was rapper [**of** zezij] (Overdiep 1937: 596)
 but I was faster *of* she_{weak}-she_{strong}
 ‘But I was faster than she was.’

Interestingly, the subordinating element *of* ‘whether’ can be used to introduce an indirect question. It marks a Yes-No opposition:

- (ii) Ik vraag me af *of* hij komt. (Standard Dutch)
 I wonder REFL PRT whether he comes
 ‘I wonder whether he will come’ (i.e., I wonder: Will he come or won’t he come?)

Recall from section 2 that comparative *-er* was reinterpreted as a marker of opposition (polarity). Arguably, polarity is represented both in the matrix clause (by means of *-er*) and in the embedded clause (by means of *of*) of the comparative construction. I tentatively propose that *of* in (i) heads the CP-layer, and that a silent *DAN*-phrase occupies [Spec,CP], as in (iii). I further assume that in Standard Dutch, *of* remains silent and *dan* surfaces in [Spec,CP], as in (iv). In short, these varieties differ in which part of CP surfaces: the head position C or the specifier position? This clearly looks like a doubly-filled-XP effect.

- (iii) ...rapper [CP **DAN** [C' *of* [FocP [DP **zezij**] [Foc' Foc [~~TP zezij dan was~~]]]]

(58) Jij kunt [MOOier] zingen [_{CP} **dan** [_C C [_{FocP} **mijn ZUS** [_{TP} ~~mijn zus dan zingt~~]]]].

In standard Dutch, *mijn ZUS* in (57) and (58) can be replaced by the strong nominative pronoun *ZIJ* ‘she’, which carries focus accent.³¹ There are Dutch varieties, though, in which *dan* can be followed by a strong pronoun that carries non-nominative case (i.e., accusative), as in (59):³²

(59) Jij kunt [MOOier] zingen dan HAAR.
 you can beautiful-CMPR sing than her
 ‘You can sing more beautifully than her.’

It is tempting to analyze *dan haar* as a PP in which *dan* represents P and *haar* functions as a complement of P. Such a PP-analysis faces the problem, though, that R-pronominalization of the complement of *dan* is impossible (see also (35b)):

(60) Dit is GROTer [dan DAT] / *[DAAR dan]
 this is bigger than that there than
 ‘This is bigger than that.’

(iv) (*DAN* = silent pro-form)
 ...rapper [_{CP} **dan** [_C OF [_{FocP} [_{DP} **zij**] [_{Foc} Foc [_{TP} ~~zij dan was~~]]]]]
 (*OF* = silent C)

Besides *dan* and *of*, we also find *als* ‘as’ as the standard marker of comparison in Dutch varieties. For example: *Jan is groter als mij/ik* (Jan is taller as me/I, ‘Jan is taller than me/than I am’). Historically, *als* derives from *al+zo* (all+so); see Weijnen (1958) and Massaia (2023). I tentatively propose that *als* is a nominal expression with the following inner structure: [_{QP} *al* [_{nP} *n* (= -s) [_{pro}]]]. This *als* can appear as a sort of reinforcing element on certain “adverbs”. For example: *alstoen* (all-s-then, ‘then’), *alsdan* (all-s-then, ‘then’), *alsnu* (all-s-now, ‘now’).

Sentence (v) exemplifies the use of temporal *alsdan* ‘then’. It should be noted that *alsdan* is typically attested in formal registers:

(v) De werkgever mag extra vakantiedagen toewijzen indien de werknemer
 the employer may extra vacation-days assign if the employer
alsdan 58 jaar of ouder is.
 as-then 58 year or older is
 ‘The employer may allow extra days off if the employee, at that particular moment, is 58
 years old or older than that.’

I tentatively propose that the standard marker *als* is a complex adverbial pro-form containing a silent (i.e., unpronounced) *DAN*:

(vi) ...groter [_{PP} *alsDAN* [_P P (= OF) [_{XP} mij [_X X *alsDAN*]]]]] DAN / OF = silent
 ‘taller than me’

³¹ Interestingly, the weak pronoun *ze* is impossible after “comparative” *dan*: **Jij kunt mooier zingen dan ze*_{weak}. This confirms the idea that the phrase following comparative *dan* must be a focalized constituent.

³² Also with this accusative pronominal form, only the strong form is possible. The weak form ‘r ‘her’ yields an ill-formed pattern. Thus: **Jij kunt mooier zingen dan ‘r*.

If *dan* were an adposition in (60), you would expect it to allow for R-pronominalization. Recall at this point that the apparent adposition *namens* ‘on behalf of’ also blocked R-pronominalization; see (36b). Thus, the form *daar namens* (there on.behalf, ‘on behalf of that’) is completely ruled out. Recall that phrases like *namens de regering* ‘on behalf of the government’ were analyzed as hidden adpositional phrases in which a silent P selects a Construct State possessive construction, with *namens* being the possessed element and *de regering* being the possessor. The meaning of *namens de regering* roughly corresponds to “in the government’s name”. Suppose now that the sequence *dan HAAR* in (59) instantiates this same Construct State configuration, with *dan* being the possessed noun phrase and *HAAR* being the possessor. This sequence can be paraphrased as: “to her degree of singing beautifully”. In line with this paraphrase, I propose that the string *dan HAAR* has the representation in (61):³³

- (61) a. [PP Spec [P' P \emptyset [DP Spec [D' D [PosP HAAR [Pos' Pos [dan]]]]]]]
 b. [PP [**dan**] [P' P \emptyset [DP ~~dan~~ [D' D [PosP HAAR [Pos' Pos ~~dan~~]]]]]]

Although this Construct State analysis of *dan haar* may seem a bit strange at first sight, it possibly becomes less so if we consider the examples in (62), where a d-element (*de, den*) immediately precedes a possessor. Such examples are typically found in Southern Dutch dialects; the examples in (62) are from Kempenland Dutch, a Northern-Brabantish dialect spoken in the south of The Netherlands; see De Bont (1958: 385-386).

- (62) a. 'r Hoor wordt nāt zeu grijs a's [*de Nätjes*].
 her hair gets just as grey as the Netje's
 ‘Her hair is getting as grey as Netje’s.’
 b. [*Den ons moeders*] is veul dūrder.
 the our mother's is much expensive-CMPR.
 ‘Those of our mother are much more expensive.’

At the surface, *de/den* looks like a definite article that precedes the possessor-DP *Nätjes/ons moeders*. Under such an analysis, however, the possessor would be followed by a silent noun, which is generally not possible in Dutch (varieties); that is, Dutch (as opposed to English) does not allow NP-ellipsis with a possessor as remnant: **Ik heb Peter's gezien* (I have Peter's seen, ‘I saw Peter's (e.g., car).’ In Corver and Van Koppen (2010), it is proposed that the patterns *de Nätjes* and *den ons moeders* in (62) are actually Construct State noun phrases. The d-element *de/den* is a (phonologically weak) definite pro-nominal that pronominalizes the possessum-part of the noun phrase, and *Nätjes/ons moeders* is the

³³ The question arises how to analyze English *than*, which, just like English prepositions, can be stranded, as in *Which person is he taller than?* (cf. Hankamer 1974). Possibly, English *than* has become a real preposition in the course of time. Compare in this respect French *chez* ‘at/with’, which has a nominal origin but behaves like a preposition in present-day French; see Longobardi (2001).

(focalized) possessor. The word order pattern ‘(pronominal) possessum – possessor’ results from displacement of the definite pronominal to the left periphery of xNP, say [Spec,DP]; see (63).

(63) [DP **de** [_{D'} D^o [PosP *Nätjes* [_{Pos'} Pos^o [_{NP-de}]]]]] (see (62a))

Standard Dutch does not permit patterns such as *de Nätjes* in (63). It does, however, allow the pattern *die van Netje* (that of Netje, ‘Netje’s’) and *die van haar* (that of her, ‘hers’). Possibly, these standard Dutch patterns have the same structure as the one in (63), with the only difference that D^o has *van* as an exponent, which is quite along the lines of Kayne’s (1994: 102) analysis of the French pattern *celui de Jean* (that of John, ‘John’s’).³⁴

(64) [_{DP} **die** [_{D'} D^o (= van) [_{PosP} *Netje/haar* [_{Pos'} Pos^o [_{NP-die}]]]]]]

In summary: in this section, I tried to make “strange” the standard marker *dan*, whose occurrence has been associated typically with comparative constructions. It was argued that the standard marker *dan* is not a construction-specific element. Rather, it falls within the broader class of (anaphoric) *d*-pronouns, and it is no different from, for example, temporal *dan*. Importantly, it was also shown that *dan*, when it has a comparative-contrastive function, can be found in environments where there is no “comparative” morpheme (e.g., *meer* ‘more’ or *-er*) present; see (50) and (52). This suggests that the “comparative” *dan*-phrase or clause is not in an obligatory c-selectional relationship with the comparative morpheme (e.g., *meer* ‘more’, *-er*).³⁵ The dependency relation in which *dan* enters seems to be more of an anaphoric type. Specifically, *dan* takes a non-topic phrase from the preceding sentence as its antecedent and introduces it as the topic of the new sentence/phrase. This ordering relationship —that is, antecedent_[+FOCUS] linearly first, and *dan*_[+TOPIC] linearly second— arguably accounts for the ill-formedness of the pattern in (35d), repeated here as (65).

(65) **een [dan deze slang langere krokodil]*
 a *than this snake longer crocodile*

³⁴ In Kayne’s (1994: 102) analysis, *de* expones the complementizer *C*, as in (i):

(i) [D [_{CP} *celui*]_j [_{de} [_{IP} *Jean* [_I^o [_e]_j ...

³⁵ It should be noted that the comparative adjective and the *dan*-phrase (or clause) can be separated from each other by quite a few intervening phrasal “boundaries”. This is exemplified in (i), where the comparative morpheme *-er* and the *dan*-phrase (*dan Els*) are separated from each other by an adverbially used xAP, an attributive xAP, a (direct object) noun phrase, a PP, and a VP. Deriving the extraposed position of the *dan*-phrase by means of some displacement operation seems implausible given the generally assumed locality of displacement. Notice also that leftward movement from this configuration is impossible. In view of the (hierarchical) distance between the comparative morpheme *-er* and the *dan*-phrase, establishing a dependency relation in terms of some construal rule involving the *d*-pronoun *dan* seems more attractive.

(i) ...*dat Jan* [[_{in} [_{een} [[_{makkelijk}_{er} xAP] _{bereikbare} xAP] _{stad} xNP] xPP] _{woont} xVP] **dan Els**
 ...*that Jan in an easier reachable city lives than Els*
 ‘...*that Jan lives in a city which is easier to reach than the city where Els lives.*’

'a crocodile which is longer than this snake'

The phrase *dan deze slang* can't precede the comparative adjective *langere* because of the fact that a topical element like *dan* typically follows its focalized antecedent (*langere*). For the same reason, presumably, *dan*-phrases can never be proposed to clause-initial position in Dutch:

- (66) **[Dan welk dier] is deze slang [langer dan welk dier]?*
than which animal is this snake longer
'Which animal is this snake longer than?'

After this discussion of the standard marker *dan*, I will now move on to the syntax of Dutch superlatives and reflect on them through a modular lens.

4. Reflections on superlative 't through a modular lens

This section examines superlative patterns like (67a) and (67b), by looking at them through a modular lens.

- (67) a. *Deze auto is ['t mooist(-e)].*
this car is 't beautiful-SPRL-e
'This car is the most beautiful.'
- b. *Marie zingt ['t mooist(-e)].*
Marie sings 't beautiful-SPRL-e
'Marie sings the most beautifully.'

The superlative pattern 't *mooist(-e)* consists of the following elements: the element 't, an adjective (*mooi*) which carries superlative morphology (-st), and an element -e (pronounced as a schwa), which appears to be optionally present.³⁶

I will try to understand the nature of these two grammatical elements step by step. Section 4.1 starts with a comparison of superlatives that are used predicatively and those that are used attributively. The former are characterized by the presence of superlative 't, the latter by its absence. Section 4.2 addresses the question about the grammatical nature of superlative 't. It will be argued that 't is not a neuter definite article (say, 'the_[neuter]') but rather a definite pronoun which pronominalizes a lower part of xNP (the Extended Nominal Projection), leaving the superlative xAP (*mooist*) as a remnant. The definite pronoun 't undergoes xNP-internal movement across the attributive superlative, which yields the word

³⁶ In what follows, I will represent superlative 't as 't and not as *het*, even though the latter is also used orthographically (i.e., *het mooist(-e)*). I will use 't as well when it is used as a neuter definite article ('t *huis*, the_[+neuter] house) or as a neuter personal pronoun (*Ik zag 't*, I saw it). Also in these examples, *het* could be used orthographically.

order *'t mooist*. Section 4.3 discusses the optional appearance of *-e*; that is, *'t mooiste* versus *'t mooist*. It will be argued that *-e* in *'t mooiste* expones the *in situ* copy of the xNP-internally displaced pronoun *'t*. It will further be argued that the “bare” pattern *'t mooist* is derived by xNP-internal displacement of the superlative xAP to the Specifier-position of an xNP-internal Focus-projection. In section 4.4., further evidence is given in support of the proposal that superlative *-e* is a Spell-Out of the *in situ* copy of the xNP-internally displaced definite pronoun *'t*. This evidence comes from two types of superlative patterns: (i) the bare superlative *liefst* (preferable-SPRL-*e*; ‘most preferably’), which can’t have *-e* attached to it (**liefste*); (ii) the superlative pattern *op m’n mooist(*-e)* (at my beautiful-SPRL(-*e*); ‘in the most beautiful way I can’). In section 4.5, the final step in my analysis of predicatively used superlatives will be presented: it will be argued that the xNP *'t mooist(-e)* is embedded within a hidden adpositional phrase headed by a silent P. The definite pro-form *'t*, which starts out low within xNP and undergoes xNP-internal movement to the left periphery of DP, undergoes a second movement step, namely movement to [Spec,PP].

4.1 On the distribution of superlative *'t*

The superlative pattern featuring *'t* is typically found on adjectives that are used predicatively, as in (67). When used attributively, the superlative adjective must be bare in the sense that *'t* can’t be present. This is shown in (68a). As shown by (68b), *'t* is also obligatorily absent in NP-ellipsis patterns.

- (68) a. Dit is mijn (*'t) mooiste auto.
 this is my 't beautiful-SPRL-*e* car
 ‘This is my most beautiful car.’
- b. Dit is [mijn (*'t) duurste auto] en dat is [mijn (*'t) mooiste \emptyset_N].
 this is my 't expensive-SPRL-*e* car and that is my 't beautiful-SPRL-*e*
 ‘This is my most expensive car and that is my most beautiful one.’

It is tempting to relate the obligatory absence of superlative *'t* to some adjacency constraint that blocks the linear sequencing of two determiner-like elements; that is: **de/'t/mijn > 't*. Such a surface-based linearization analysis, however, can’t be the correct account of the ill-formedness of the patterns featuring *'t* in (68). Even if material intervenes between the two elements, superlative *'t* must be absent in the attributive AP. This is shown in (69):

- (69) a. ['t [mijns inziens (*'t) kleinste] meisje in mijn klas] is Marie.
 the_[+neuter] my-s opinion ('t) smallest girl in my class is Marie
 ‘Mary is, in my opinion, the smartest girl of my class.’

- b. [Mijn [**zowel** (*'t) *mooiste* **als** (*'t) *dierbaarste*] herinnering aan
 my both ('t) most.beautiful and ('t) fondest memory of
 haar] was deze.
 her was this
 'My most beautiful and also fondest memory of her was this one.'

In (69a), the adverbial expression *mijns inziens* linearly intervenes between the definite article 't and the superlative adjective. The non-adjacency of the definite article 't and superlative 't, does not legitimize the latter. The same holds for (69b), where the possessive pronoun *mijn* is separated from superlative 't by the coordinators *zowel* and *als*. Clearly, the absence of superlative 't cannot be explained in terms of some linear constraint that blocks sequencing of determiner-like elements. The data in (68) and (69) rather suggest that "superlative 't" in the predicatively used superlatives in (67) is not part of the superlative xAP itself; see also Kayne (2004b) and Matushansky (2008) for this conclusion.

A second contrast between the predicatively used superlative adjectives in (67) and the attributively used ones in (68) regards the *-e* that follows the superlative adjective. In (67), *-e* is optionally present, in (68) it is obligatorily so. This contrast suggests that we are dealing with different grammatical formatives; that is, *-e* in (67) is a different kind of element than *-e* in (68). As for the latter element, we are dealing with the attributive ending *-e* which is typically found on attributively used adjectives.³⁷

4.2 On the pronominal nature of superlative 't

In this section, I will examine more closely the superlative pattern in (67), starting with the nature of the element 't.³⁸ From a surface perspective, "superlative 't" looks like the neuter singular definite article 't, which is familiar from expressions such as 't *huis*, the_{neuter} house, and 't *paard*, the horse_{neuter}. On the basis of this formal similarity one might hypothesize that 't in (67) is a neuter definite article.³⁹ Since definite articles are typically found in noun phrases, it is tempting to conclude that 't in (67) is part of a larger noun phrase (xNP). The superlative pattern 't *mooist* in (67) could then be assigned the nominal structure in (70),

³⁷ The attributive adjectival inflection *-e* appears on all attributive adjectival modifiers except for those modifying an indefinite singular neuter noun phrase, as in *een klein huis*_[+neuter] (a small house).

³⁸ For reasons of space, I won't discuss the nature of the superlative morpheme *-st* in this chapter. For the present discussion, which focusses on the non-construction-specificity of certain grammatical formatives in comparatives and superlatives, it is important to point out that the morpheme *-st* is also attested in other structural environments, most notably on ordinals, as in *het acht-st-e boek* (the eight-*st*-INFL book, 'the eighth book') and *het twintig-st-e boek* (the twenty-*st*-INFL book, 'the twentieth book').

³⁹ Ross (1964) makes this claim for English "superlative" *the* (e.g., *the fastest*), and Matushansky (2008) develops this analysis for a broader range of languages, including French and Dutch.

where 't is a definite article (D), the superlative adjective an attributive modifier, and Ø a null head noun (cf. Ross 1964, Matushansky 2008).⁴⁰

(70) [DP 't [NP [XAP mooist] [NP Ø]]]

As for the superlative pattern 't *mooiste*, which features -e at the end, the question obviously arises as to how to analyze this element. One might want to analyze this element as an inflectional ending on *mooist*, but such an analysis immediately raises the question as to why this ending is not obligatorily present. Notice at this point that applying NP-ellipsis to a neuter definite nominal expression containing a superlative adjectival remnant requires the presence of -e. Consider for this the following example:

(71) Jan kocht ['t lelijkste huis] en Marie kocht ['t mooist*(-e)].
 Jan bought the ugly-SPRL-e house and Marie bought the beautiful-SPRL-e
 'Jan bought the ugliest house and Marie bought the most beautiful one.'

In short, the optional presence of -e in (67) is hard to reconcile with an analysis according to which -e is an adjectival inflection.

Besides the issue about the nature of -e, the structural analysis in (70) faces another problem. Specifically, if 't is a neuter definite article, why can't it be replaced by other types of [+neuter] determiners? As shown in (72), for example, the element 't cannot be replaced by demonstrative determiners such as *dat* 'that' and *dit* 'this':

(72) a. *Deze auto is [dat/dit mooist(-e)].
 this car is that/this beautiful-SPRL-e
 b. *Marie zingt [dat/dit mooist(-e)].
 Mary sings that/this beautiful-SPRL-e

Notice again that with "true" cases of NP-ellipsis, such replacement is possible:

(73) a. Dit duurste hotel van Parijs vind ik minder sfeervol
 this expensive-SPRL-e hotel of Paris find I less cosy
 dan *dat* goedkoopste.
 than that cheap-SPRL-e
 'In my opinion, this most expensive hotel of Paris is less cosy than that
 cheapest one.'

⁴⁰ See Matushansky (2008) for discussion of the semantics of the null noun.

- b. Welke huis aan deze gracht vind je 't mooist?
 which house on this city-moat find you 't beautiful-SPRL
 'Which house do you like best?'

Dit (aller)kleinste of *dat* (aller)grootste?
 this (of.all)small-SPRL-e or that (of.all)big-SPRL-e
 'This smallest one or that largest one?'

The impossibility of replacing 't in (67) by another determiner-like element (e.g., *dat*) is reminiscent of the following contrast observed in Corver and Van Koppen (2010), which regards nominal expressions in which a possessive pronoun is used substantively:

- (74) a. Ik vind het huis van Jan mooi en hij vindt [*'t mijne*] mooi.
 I find the house of Jan beautiful and he finds the my-e beautiful
 'I like Jan's house and he likes mine.'
 b. *Ik vind 't huis van Jan mooi en hij vindt [*dat mijne*] mooi.

The possessive pronoun *mijne* in (74a) cooccurs with the element 't, which is obligatorily present. As shown in (74b), *het* cannot be replaced by another definite determiner: **dat mijne*. Arguably, the ill-formedness of this pattern is not due to semantic reasons. If *dat mijne* in (74b) is replaced by the (semantically similar) nominal expression *dat van mij* (that of me, 'mine'), the sentence is fully grammatical.⁴¹

Besides the property that 't cannot be replaced by another definite-determiner-like element, the pattern 't *mijne* has two other interesting properties. First of all, the sequence 't + possessive pronoun is possible only when the possessive pronoun is used substantively ('t *mijne*), not when it is used attributively: (*'t) *mijn huis* ('t my house, 'my house'). Secondly, when used substantively, the possessive pronoun must be followed by the element -e. Thus: 't *mijn*(-e)*, 'mine'. When used attributively, -e cannot appear on the possessive pronoun: *mijn(*-e) huis*. The latter fact suggests that the -e in 't *mijn-e* 'mine' is not an attributive inflection.

Corver and Van Koppen (2010) propose the following analysis for patterns like 't *mijne* ('t my-e, 'mine'): instead of analyzing 't as a neuter definite article (i.e., the D-head of DP), they propose that 't is a definite pro-noun replacing the noun (more specifically NP) of xNP. In a certain way, 't is similar to English *one*, as in *a red one*, which also pronominalizes a lower part (NP) of xNP. It differs, however, from *one*-pronominalization as regards the definiteness of the pro-form: English *one* is an indefinite pro-form whereas Dutch 't is a (neuter) definite pro-form. Furthermore, as opposed to English *one*, which remains *in situ*, Dutch 't undergoes displacement to the left periphery of xNP and ends up in an *ex situ* position, as depicted in (75a,b). As indicated in (75c), the bound morpheme -e on *mijn-e* is interpreted as a (minimal) spell-out of the (definite) pronominal copy 't in the base-position.

⁴¹ See example (64) for an analysis of patterns like *dat van mij*.

Thus, the grammatical property ‘definiteness’ is marked twice, namely by the *ex situ* pro-form ‘*t* and its *in situ* exponent *-e*.⁴²

- (75) a. [DP Spec [D' D [POSP mijn [POS' [Pos° [NP 't]]]]]] base structure
 b. [DP 't [D' D [POSP mijn [POS' [Pos° [~~NP-t~~]]]]]] displacement of 't
 c. [DP 't [D' D [POSP mijn [POS' [Pos° [~~NP-t~~]]]]]] ~~t~~ is spelled out (PF) as *-e*

Building on this analysis, I propose that ‘*t* in the superlative pattern ‘*t mooist(e)* is also a pro-form that replaces a lower part of the extended (pro)nominal projection; see (76). In line with Heim’s (1999) claim that the superlative morpheme encodes ‘uniqueness’, a property which has been associated also with definiteness, one might interpret the relationship between the modifying attributive xAP *mooist* and the modified definite pro-form ‘*t* in terms of definiteness agreement (concord).

- (76) [DP Spec [D' D [xAP mooist_[+definite]] [NP 't_[+definite]]]] base structure

Just like ‘*t* in ‘*t mijne*, I take ‘*t* in ‘*t mooist(e)* to undergo movement to the left periphery of xNP, as in (77):

- (77) [DP 't [D' D [xAP mooist] [~~NP-t~~]]] displacement of 't

There is one important difference, though, between ‘*t mijne* and ‘*t mooist(e)*: in the former pattern, *-e* obligatorily appears on *mijne*; in the latter pattern, on the contrary, the appearance of *-e* is optional.

4.3 On the presence and absence of superlative *-e*

One way of dealing with the optional appearance of *-e* on the superlative form *mooist* is to say that exponence of the copy of the displaced definite pro-nominal is optional. With exponence, we have the pattern [DP 't [D' D [mooist [-e]]]], without exponence we have the form [DP 't [D' D [mooist [∅]]]]. Trying to avoid optional spell-out operations in the grammar, however, I propose that the two superficially almost identical patterns correspond to two different syntactic structures. Specifically: ‘*t mooiste* corresponds to the structure in (80), where *-e* expones the *in situ* copy. The pattern ‘*t mooist*, on the contrary, involves xNP-internal displacement of the superlative xAP to the Specifier-position of an xNP-internal

⁴² A reviewer raises the question as to what triggers the xNP-internal movement of ‘*t*. Leaving an in-depth investigation of this question for future research, I restrict myself to formulating the hypothesis that it has to do with the weak-pronominal status of the pro-form ‘*t*. Possibly, the definiteness-feature associated with ‘*t* plays a role as well. Movement of ‘*t* to the DP-layer does not seem implausible given the fact that D° is the functional head where definiteness is typically encoded.

Focus-projection. According to this Focus-movement analysis, we have the base structure in (78a) and the derived structure in (78b):

- (78) a. [DP Spec⁰ [D' D [FOCP Spec [FOC' Foc⁰ [NP [XAP *mooi*st] [NP 't]]]]]]]
 b. [DP 't [D' D [FOCP **mooi**st [FOC' Foc⁰ [NP [XAP ~~mooi~~st] [NP 't]]]]]]]

According to this approach, optionality of *-e* on the superlative xAP is apparent. The element *-e* surfaces only when the superlative xAP is *in situ* and linearly adjacent to the copy of the displaced pro-form, as in (77). This is the configuration which permits spell-out of the *in situ* copy as *-e* and subsequent attachment to the linearly adjacent host *mooi*st, yielding *mooi*ste. I assume that the appearance of *-e* formally marks the focalized status of the superlative xAP. In (78), this focalized status is represented in another way, namely by displacement of the superlative xAP to a designated syntactic position associated with Focus. In that case, no additional morphological marking is needed, and given economy considerations, it must be absent.

That superlative adjectives can move leftward within xNP receives support from the examples in (79); see also Broekhuis (2013:321-22).

- (79) a. de mooie grote boot
 the beautiful-INFL big-INFL boat
 'the beautiful big boat'
 b. ?*de mooie grootste boot
 the beautiful-INFL biggest-INFL boat
 c. de grootste mooie boot
 the biggest-INFL beautiful-INFL boat

In (79a), we have a sequence of attributive adjectives of which the linearly first adjective (*mooie*) denotes a property that involves some subjective evaluation, and the linearly second adjective (*grote*) denotes a property that can be established more or less objectively. The linear ordering of the adjectives in (79a) is the default order, which is especially clear when they occur in indefinite noun phrases: the pattern *een mooie (vrij) grote boot* (a beautiful (rather) big boat) is more acceptable than *??een (vrij) grote mooie boot* (a (rather) big beautiful boat). Interestingly, when the adjective *groot* has the superlative form, as in (79b,c), the preferred word order changes: the superlative adjective *grootste* preferably precedes the positive adjective *mooie*, as in (79c). I assume that this word order change results from a Focus movement operation within xNP: the focalized superlative AP is moved to the Spec-position of an xNP-internal Focus Projection:

- (80) [DP de [D' D [FOCP **grootste** [FOC' Foc⁰ (= ∅) [NP [XAP mooie] [NP ~~grootste~~ boot]]]]]]]

In summary: so far, I have proposed two things: firstly, superlative 't is not a definite article (i.e., determiner) originating in D. Rather, it is a definite pro-nominal that substitutes for the lower part (NP) of xNP. I argued that this pronominalization strategy is also at the basis of so-called substantively used possessive pronouns (e.g., 't mijne). Importantly, this shows that "superlative 't" is not a construction-specific property. Pronominalization within xNP by means of a definite pro-form is a more widespread phenomenon. Secondly, I argued that there are two ways to formally mark the focalized status of the superlative xAP: (i) copy spell-out (-e) and subsequent attachment of the spelled-out copy to the *in situ* superlative host; (ii) displacement of the superlative xAP to a designated syntactic position associated with Focus. In the latter case, no additional morphological marking (-e) is possible on the (displaced) superlative xAP. In what follows, I will explore the pronominalization strategy a bit further, as well as the idea that -e is a spell-out of a definite pronominal copy.

4.4 Further evidence in support of superlative -e as a Spell-Out of displaced 't

So far, I have argued that the appearance of -e on the superlative pattern 't *grootste* relates to the displacement of a definite pro-form 't within xNP. This correlation between the presence of 't and the appearance of -e receives support from two angles. Firstly, there is a small class of adverbially used superlative adjectives that can appear without 't. If 't is absent, so is -e:

- (81) a. Marie drink 't *liefst(-e)* thee.
 Mary drinks 't preferable-SPRL-e tea
 'Most preferably, Mary drinks tea.'
- b. Marie drinkt *liefst(*-e)* thee.
 Mary drinks preferable-SPRL-e tea
 'Most preferably, Mary drinks tea.'

In view of the absence of -e on the superlative xAP, I assume that the superlative patterns in (81) make use of the Focus-movement strategy, as depicted in (82). I tentatively propose that the absence of 't is due to some Topic-drop-like operation.

- (82) a. [DP Spec^o [D' D [FocP Spec [Foc' Foc^o [NP [XAP *liefst*] [NP 't]]]]]] (base str.)
 b. [DP 't [D' D [FocP **liefst** [Foc' Foc^o [NP [~~XAP *liefst*~~] [~~NP 't~~]]]]]] (derived str.)
 c. [DP \emptyset [D' D [FocP *liefst* [Foc' Foc^o [NP [~~XAP *liefst*~~] [~~NP 't~~]]]]]] (Topic-drop)

Another phenomenon that suggests that the appearance of -e correlates with the presence of the definite pro-form 't comes from the superlative patterns in (83):⁴³

⁴³ This pattern is also possible as a predicative phrase in copular constructions:

- (i) Ik ben nu [op m'n *moist(*-e)*].

- (83) a. Ik zing nu [op m'n mooist(*-e)]
 I sing now at my beautiful-SPRL-e
 'I am singing now in the most beautiful way I can.'
- b. Marie zingt nu [op d'r mooist(*-e)].
 Mary sings now at her beautiful-SPRL(-e)
 'Mary is singing now in the most beautiful way she can.'

As indicated, *-e* can't be attached to the superlative xAP. This is in line with the observation that the presence of "superlative *-e*" correlates with the presence of the neuter definite pronoun 't. Since there is no (displaced pro-form) 't present in the superlative patterns in (83), there is also no *-e* present.

The question then arises, of course, as to what accounts for the morphological bareness of the superlative form in (83), i.e., *mooist*. Given the presence of the possessive pronoun (*m'n* 'my', *d'r* 'her') before the superlative adjective, it is tempting to analyze the sequence *m'n/d'r mooist* as an xNP in which NP-ellipsis has taken place. Such an analysis is unlikely, however, since the operation of NP-ellipsis typically requires an inflected attributive adjective (i.e., *A+-e*) when the remnant of NP-ellipsis consists of a possessive pronoun and an attributive adjective. This is shown in (84):

- (84) Mijn duurste paard_{neuter} loopt sneller dan mijn mooist*(-e).
 my expensive-SPRL-INFL horse runs faster than my beautiful-SPRL(-INFL)
 'My most expensive horse runs faster than my most beautiful one.'

In short, an analysis of the sequence (*op*) *m'n mooist* in terms of NP-ellipsis seems implausible.

Building on the idea that 't in 't *mooist(-e)* is a pro-nominal element that is modified by the superlative xAP *mooist*, I propose that *m'n* in *op m'n mooist* involves the pronominalization strategy as well. Specifically, *m'n* starts out as a pro-nominal that is modified by the superlative xAP, as in (85a). The pronoun *m'n* subsequently undergoes leftward movement within xNP across the attributive superlative xAP, as in (85b):

- (85) a. [_{PP} op [_{DP} Spec [_{D'} D [_{FP} [_{xAP} mooist] [_{FP} m'n]]]]] base structure
 b. [_{PP} op [_{DP} m'n [_{D'} D [_{FP} [_{xAP} mooist] [_{FP} m'n]]]]] displacement of *m'n*

The analysis in (85) builds on Déchaine and Wiltschko's (2002) proposal that there is a typology of pronominal elements and that pronoun types are defined morpho-syntactically. Specifically, they argue that languages can have three pronoun types: pro-NP, pro-φP, and

I am now at my beautiful-SPRL(-e)
 'I am at my best now.'

pro-DP. I propose that this typology of pronouns does not hold only at the level of pronouns with an argumental role (e.g., *John bought a car and I bought one too*) but also at the level of pronominalization as an xNP-internal “replacement strategy” (e.g., *John bought a red car and I bought a blue one*). Besides pronominalization by an indefinite pronominal (e.g., English *a blue one*) and pronominalization by a definite pronominal (e.g., the Dutch superlative pattern *'t mooist(-e)*), I assume that languages also permit pronominalization by means of a pronoun that is specified for ϕ -features (e.g., person, gender, and number); that is, ϕ_P . It is this last pronominalization strategy which underlies the formation of patterns such as *op m'n mooist*. Thus, the F(unctional) P(rojection) *m'n* in (85) is actually a ϕ_P ,

Importantly, the pronominalizing possessive elements *m'n* and *d'r* in (83) are nothing but phonological realizations (spell-outs) of a set of grammatical features. That is, they don't fulfill any referential role. Support for this purely grammatical role of *m'n* and *d'r* in (83) comes from the fact that these “possessive” pronouns can only have the weak form (*m'n*; *d'r*) but not a strong, emphatic form (*mijn*; *haar*), which is associated typically with an argumental and referential use of the pronoun:

- (86) a. Ik zing op [míjn manier] en Marie zingt op [háár manier].
 I sing in my way and Mary sings in her way
 'I sing my way and Mary her way.'
- b. *Ik zing op [míjn mooist] en Marie zingt op [háár mooist]
 I sing at my beautiful-SPRL and Mary sings at her beautiful-SPRL

Another phenomenon that shows that the pronominalizing elements *m'n/d'r* display different behavior from argumental pronouns comes from their binding behavior. Consider for this the contrast between (87) and (88):⁴⁴

- (87) Ik_i hoorde [dat Marie_k op [m'n_i/d'r_k moeder] wachtte].
 I heard that Mary for my/her mother waited
 'I heard that Mary_k waited for my_i/her_k mother.'
- (88) Ik_i vind dat Marie_k nu op d'r_k/*m'n_i mooist zingt.
 I think that Mary now at her/my beautiful-SPRL sings
 'I think Mary is singing now in the most beautiful way.'

Example (87) shows that the argumental possessive pronouns *m'n/d'r* can enter into a dependency relation (coreference) with an antecedent which is located either in the embedded clause (*Marie ... d'r*) or in the matrix clause (*ik ... m'n*). Notice now that the possessive pronoun in (88) displays different behavior: it can enter into a dependency relationship only with the subject of the embedded clause (*Marie ... d'r*) but not with the

⁴⁴ See Corver and Matushansky (2006) for some reflections on the anaphoric behavior of these possessive pronouns that are part of a superlative construction.

subject of the matrix clause (**ik ... m'n*). In other words, the possessive pronoun must have a local antecedent. In this respect, it behaves like a reflexive pronoun, which must also be locally bound; see (89).

- (89) Ik_i denk [_{CP} dat Marie_k zich_k/**me*_i vergist].
 I think that Mary SELF_[3rd person]/SELF_[1st person] is.mistaken
 'I think Mary is mistaken.'

In this example, the reflexive pronoun *zich* takes *Marie* as its local antecedent. Use of the reflexive form *me* is impossible; it can't enter into an anaphoric dependency relationship with the pronoun *ik* in the matrix clause.

Let's return now to the question why *-e* can't appear on the superlative adjective in the superlative pattern *op m'n/d'r mooist*; that is: **op m'n/d'r mooiste*. If *m'n* and *d'r* are pure spell-outs of phi-features —person, number, (and gender in the case of *d'r*)—, the pronominalizing elements *m'n* and *d'r* are not associated with definiteness. Consequently, xNP-internal displacement of these pro-forms, as depicted in (85) for *m'n*, does not leave behind a copy (marked for definiteness) which surfaces as *-e*.

4.5 Predicative superlatives as hidden adpositional phrases

So far, I have argued that *'t* in the superlative construction *'t hoogst(-e)* and *m'n* in the superlative construction *op m'n mooist* are elements that pronominalize a subpart of xNP. Furthermore, these pro-forms undergo xNP-internal displacement across “the superlative remnant” (i.e., the non-pronominalized part). When we compare the two superlative constructions, we notice a difference at the surface: *'t mooist* is not introduced by an adposition, *op m'n mooist*, on the contrary, is introduced by an adposition.

- (90) a. Ik zing 't mooist(-e).
 I sing 't beautiful-SPRL
 'I sing the most beautifully.'
 b. Ik zing nu op m'n mooist.
 I sing now at my beautiful.SPRL
 'I am singing now in the most beautiful way I can.'

Given its adverbial function in (90), one could raise the question as to whether there is a hidden (silent) P present in the superlative pattern *'t mooist(-e)*. Obviously, such an analysis would strengthen the parallelism between the two types of superlative “constructions”. Interestingly, the Dutch traditional grammarian Den Hertog (1903-1904:199) hypothesized that *'t* in (90) is actually a “rudimentary preposition”.⁴⁵ Clearly, such an analysis does not

⁴⁵ Den Hertog gives the following examples:

align with the analysis given above, according to which 't is a definite pro-form which pronominalizes part of xNP. At this point, it is important to introduce a third type of superlative construction, namely the one in (91):

- (91) a. Wij zongen [_{PP} om 't hardst(-e)].
 we sang for 't loudest(-e)
 'We sang at the top of our lungs (in order to find out who could sing the loudest).'
- b. Zullen wij eens om 't hardst(-e) fietsen? (Haeseryn et al 1997: 424)
 shall we PRT for 't fastest(-e) cycle
 'Shall we cycle for the fastest time?'

These superlative constructions of the type *om 't A-SPRL(-e)* are typically used when two persons compete with each other in order to see who can do the activity denoted by the verb (e.g., *sing, cycle*) in the "best" (e.g., loudest/fastest) way. Notice that this superlative pattern starts with the preposition *om*, which has a purpose or goal reading. The presence of the preposition *om* suggests that 't is not a preposition. It should be noted that *om* (93), as opposed to, for example, *voor* (92), is not a preposition that can select a PP as its complement. Thus, the sequence *om 't hardest(-e)* can't receive an analysis of the type [_{PP} *om* [_{PP} 't [_{xNP} *hardst(-e)*]]].

- (92) Deze slagroom is [_{PP} voor [_{PP} op de taart]].
 this whipped-cream is for on the cake
 'This whipped cream is for the cake.'

- (93) a. *De atleten streden [_{PP} om [_{PP} op [_{xNP} de eerste plaats]]].
 the athletes competed for on the first place
 'The athletes competed for first place.'
- b. De atleten streden [_{PP} om [_{xNP} de eerste plaats]]
 the athletes competed for the first place

In line with my analysis of the superlative pattern 't *mooist(-e)* in (67), I propose that 't is a definite pro-form which pronominalizes part of xNP. The derivation of the pattern *om 't hardste*, which features -e at the end, involves xNP-internal displacement of the pro-form 't and subsequent spell-out of the lower copy as -e, as depicted in (94).

-
- (i) 's Winters is hij 't *vlugst*.
 -s winter-s is he 't fastest
 'During the winter, he is the fastest.'
- (ii) Hij loopt 't *vlugst*.
 he walks 't fastest
 'He walks the fastest.'

He writes the following: "Het voorafgaande 't is in beide gevallen als een rudimentair voorzetsel te beschouwen (vgl. § 37, *Opn.*), dat later voor een lidwoord is gehouden en in schrift door *het* werd voorgesteld." [The preceding 't can be regarded in both cases as a rudimentary preposition (cf. § 37, Note), which was later taken for an article and was represented in writing by *het*].

(94) [PP om [DP 't [D' D [_{XAP} hardst] [_{NP} -t]]] (lower copy spells out as -e)

I assume that the pattern *om 't hardst*, which lacks -e at the end, has the derived structure in (95):

(95) [PP om [DP 't [D' D [_{FOCP} hardst [_{FOC'} FOC^o [_{NP} [_{XAP} hardst] [_{NP} -t]]]]]]]

Even though “superlative ‘t” itself arguably should not be analyzed as a preposition, the question as to whether there is a preposition present in the superlative pattern *'t mooist(-e)* is still legitimate. Such an analysis would lead to a uniform analysis of all superlative constructions that are used predicatively: *'t mooist(-e)* in (67), *op m'n mooist* in (83), and *om 't hardst(-e)* in (91). If we adopt such a uniform analysis, the pattern *'t mooist(-e)* could be assigned the following structure, where the string *'t mooiste* has the structure in (77) with spell-out of the lower copy as -e, and the string *'t mooist* the structure in (78):

(96) [PP P_∅ [_{XNP} 't mooist(-e)]]

The existence of adpositional structures featuring a silent P is familiar from the generative-linguistic literature. Superficially P-less temporal expressions have been analyzed as hidden adpositional structures, that is, adpositional phrases with a silent P; see Bresnan & Grimshaw (1978) and Emonds (1987) for English. Some examples of such superficially P-less temporal expressions in Dutch are given in (97).

- (97) a. Ik ga *deze avond* naar het theater.
I go this evening to the theatre
b. Jan gaat *zondag* naar de kerk.
Jan goes Sunday to the church

According to the adpositional analysis, a string like *deze avond* would have the following structure: [PP P_∅ [_{XNP} *deze avond*]].

Another interesting class of superficially P-less temporal expressions are the ones in (98):

- (98) a. 's *Avonds (laat)* ga ik naar het theater.
's evening-s late go I to the theatre
'I go to the theatre (late) in the evening.'
b. Jan gaat 's *zondags* naar de kerk.
Jan goes 's Sundays to the church
'On Sunday, John goes to church.'

The temporal expression *'s avonds laat* contains three elements: the initial element 's, the possessor-like element *avonds*, which features the possessive element -s at the end (thus:

avond-s), and, finally, the adjectival element *laat*. In Corver (2022), it is proposed that these temporal expressions are Construct State noun phrases. These nominal constructions are familiar from the literature on Semitic languages —e.g., Modern Hebrew *beyt ha-mora ha-gadol* (house the-teacher the-big, ‘the teacher’s big house’); see Ritter (1988)— and have been analyzed as patterns involving DP-internal movement of the nominal possessum (*beyt*) across the attributive AP (*ha-gadol*) and the possessor (*ha-mora*) to a DP-internal left-peripheral position immediately preceding the possessor.⁴⁶ Schematically: *beyt ha-mora ha-gadol beyt*. With this movement analysis in mind, and taking the temporal expressions in (98a) to have the meaning ‘the early time of the evening’, we can derive a temporal expression like *’s avonds laat* as follows (see Corver 2022 for a more detailed discussion): First of all, *’s* is a “small” pro-nominal expression (nP) consisting of a silent noun *TIME* and a categorial head *n* which surfaces as *’s* after the root has raised to *n*: [_{nP} [_VTIME+n (= -s)] [_VTIME]]. This small nP raises across the attributive adjective *laat* and the temporal possessor *avonds*, ending up in [Spec,DP], as depicted in (99).

(99) [_{DP} [_{nP} [_n VTIME+n (= -s)] ~~VTIME~~]_k [_{PosP} avonds [_{Pos} Pos [_{nP} laat [_{nP} t_k]]]]]

Notice that, at an abstract level, the derivation in (99) is quite similar to the derivation of the predicatively used superlative patterns: a pro-form that pronominalizes a lower part of xNP undergoes leftward xNP-internal displacement to the left periphery of xNP.

Interestingly, in (Southern) dialectal varieties of Dutch, the equivalents of the temporal expressions in (97) feature the element *’t*. In Pauwels (1958:322-23), for example, the following forms are mentioned for Aarschot Dutch, which is spoken in Flanders:⁴⁷

(100) *’t zondags* *’t vrijdags*
’t Sunday-s *’t Friday-s*
’on Sunday’ *’on Friday’*

Drawing the parallel with Standard Dutch *’s zondags* in (98b) and *’s avonds (laat)* in (98a) and (99), I assign the structure in (101) to the Aarschot Dutch pattern *’t zondags*:

(101) [_{PP} P_∅ [_{DP} [_{NP} **’t**] [_{PosP} zondags [_{Pos} Pos [_{NP} ~~’t~~]]]]]]

For the final step in my (admittedly tentative) analysis, I would like to draw the reader’s attention again to the derivation of the pattern *namens de regering* ‘on behalf of the government’ in (36). Its derivation in (37) is repeated as (102):

(102) a. [_{PP} Spec [_P P_∅ [_{DP} Spec [_D D [_{PosP} de regering [_{Pos} Pos [_{NP} namens]]]]]]]]
b. [_{PP} [_{nP} namens] [_P P_∅ [_{DP} namens [_D D [_{PosP} de regering [_{Pos} Pos namens]]]]]]]]

⁴⁶ See also footnote 18.

⁴⁷ I slightly adapted the orthography.

According to this analysis, the possessum *namens* undergoes xNP-internal displacement to [Spec,DP], which is followed by movement of the possessum to [Spec,PP].⁴⁸ If we generalize this derivation to the temporal expression *'t zondags* in (100), we get the following derived structure:

(103) [_{PP} [_{NP} 't] [_{P'} P \emptyset [_{DP} [_{NP} 't] [_{PosP} zondags [_{Pos'} Pos [_{NP} 't]]]]]]]

Getting back to the superlative pattern in (96), I reinterpret it as in (104), where I restrict myself to the pattern featuring *-e*:

(104) [_{PP} [_{NP} 't] [_{P'} P \emptyset [_{DP} [_{NP} 't] [_{D'} D [_{XAP} mooist] [_{NP} 't]]]]] (lowest NP-copy = *-e*)

According to this derivation, the definite pro-form *'t* starts out low within xNP, and undergoes xNP-internal movement to [Spec,DP], followed by movement to [Spec,PP]. Possibly, the silence of P may be interpreted as a doubly-filled-XP effect; that is, either the head P expones or its specifier surfaces at PF.⁴⁹

5. Conclusion

Throughout its history, defamiliarization (i.e., “making strange”) of surface phenomena and the quest for hidden abstract structures underlying them has been at the heart of generative grammar. One important device for making familiar surface phenomena strange was the elimination of the notion of grammatical construction, and with it, the elimination of construction-particular rules and primitives. Constructions such as relative clause and passive are taxonomic artifacts. In this chapter, I argued that the same holds for “constructions” such as comparative and superlative. Essentially, all these so-called constructions are collections of grammatical rules and properties which are also attested in other structural environments. This modular perspective, characteristic of generative grammar, helped me in making “strange” some core properties of Dutch comparative and superlative patterns, namely the grammatical formatives *-er* (the so-called comparative morpheme), the standard marker *dan* ‘than’, the superlative marker *'t*, and the optional marker *-e* that appears in certain types of superlatives. Crucially, the primitives and rule systems underlying these patterns were shown to exist also in other types of syntactic constructions. With this result, I hope to have shown that the strategy of reflecting on

⁴⁸ Recall that it was argued that, when *namens* occupies [Spec,PP], it is impossible to move the R-pronoun to [Spec,PP], whence the ill-formedness of the pattern *daar namens* (there on.behalf, ‘on behalf of that; e.g., the government’).

⁴⁹ In footnote 12, it was observed that the spatial superlative form *onderste* (under-SPRL-*e*, ‘lowest’) can’t be part of a predicatively used superlative construction; that is: **'t onderste*. Possibly, the ill-formedness of this pattern has something to do with the co-occurrence of two adposition-like elements: *onder* and the silent P. I leave this for future research.

language through a modular lens allows us to see hidden structures underneath of the linguistic sound surface. This strategy allows us to appreciate the abstractness of the structures and operations that are present in the human mind.

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References

- Abels, Klaus. 2003. *Successive Cyclicity, Anti-Locality, and Adposition Stranding*. Doctoral dissertation, University of Connecticut, Storrs
- Baker, Mark C. 2008. *The atoms of language. The mind's hidden rules of grammar*. Basic Books.
- Bobaljik, Jonathan. 2012. *Universals In Comparative Morphology*. Cambridge, MA: MIT Press.
- Bresnan, Joan and Jane Grimshaw. 1978. The Syntax of Free Relatives in English. *Linguistic Inquiry* 9. 331–391.
- Broekhuis, Hans. 2013. *Syntax of Dutch. Adjectives and Adjective Phrases*. Amsterdam: Amsterdam University Press.
- Caponigro, Ivano & Lisa Pearle. 2009. The nominal nature of *Where, When, and How*: Evidence from Free Relatives. *Linguistic Inquiry* 40. 155-164.
- Chomsky, Noam. 1968. *Language and Mind*. New Yor: Harcourt, Brace & World.
- Chomsky, Noam. 1970. Remarks on Nominalization. In: R. Jacobs and P. Rosenbaum (eds.), *Readings in English Transformational Grammar*. 184-221. Ginn, Waltham, MA.
- Chomsky, Noam. 1977. On wh-movement. In Peter Culicover, Thomas Wasow, and Adrian Akmajian (eds.), *Formal Syntax*, 71–132. New York: Academic Press.
- Chomsky, Noam (1993). A minimalist program for linguistic theory. In Kenneth Hale & Samuel J. Keyser (eds.), *The view from building 20*, 1-52. Cambridge, MA: MIT Press.
- Cinque, Guglielmo. 1980. On extraction from NP in Italian. *Journal of Italian Linguistics* 5. 47-100.
- Collins, Chris. 2007. Home sweet home. *NYU Working Papers in Linguistics* 1. 1-34.
- Corver, Norbert. 1990. *The syntax of left branch extractions*. Tilburg University: PhD thesis.
- Corver, Norbert. 2005. Double comparatives and the comparative criterion, *Recherches linguistiques de Vincennes* 34. 165-190.
- Corver, Norbert. 2017. Decomposing temporal adverbs. Ms. Utrecht University.
- Corver, Norbert. 2022. Adverbial -s as last resort: *n* and *a* get their support. *Natural Language and Linguistic Theory* 40. 1023–1073.
- Corver, Norbert & Marjo van Koppen 2010. Ellipsis in Dutch possessive noun phrases: a micro-comparative approach. *The Journal of Comparative Germanic Linguistics* 13. 99-140.
- Corver, Norbert & Ora Matushansky. 2006, At our best when at our boldest. Handout TIN-dag, February 4, 2006. Utrecht University.
- De Belder, Marijke, Noam Faust & Nicola Lampitelli. 2014. On a low and a high diminutive: Evidence from Italian and Hebrew. In Artemis Alexiadou, Hagit Borer and Florian Schäfer

- (eds.), *The syntax of roots and the roots of syntax*, 149-163. Oxford: Oxford University Press.
- De Bont, A.P. 1958. *Dialekt van Kempenland. Meer in het bijzonder d'Oerse taal. Deel 1. Klanken vormleer en enige syntactische bijzonderheden*. Assen: Van Gorcum & Comp. N.V.
- Déchainé, Rose-Marie & Martina Wiltschko. 2002. Decomposing pronouns. *Linguistic Inquiry* 33. 409–442.
- De Haas, Wim & Mieke Trommelen. 1993. *Morfologisch Handboek van het Nederlands*. SDU.
- Den Dikken, Marcel. 2010. On the functional structure of locative and directional PPs. In Guglielmo Cinque and Luigi Rizzi (eds.), *Mapping spatial PPs*, 74-126. Oxford: Oxford University Press.
- Den Hertog, C. H. 1903-1904. *Nederlandsche spraakkunst. Handleiding ten dienste van aanstaande (taal)onderwijzers*. Deel 1: de leer van den enkelvoudigen zin. Amsterdam: W. Versluys.
- Embick, David & Rolf Noyer. 2007. Distributed Morphology and the Syntax/Morphology interface. In: Gilian Ramchand & Charles Reiss (eds.), *The Oxford Handbook of Linguistic Interfaces*, 289-324. Oxford: Oxford University Press.
- Emonds, Joseph. 1987. The Invisible Category Principle. *Linguistic Inquiry* 18. 613-632.
- Grohmann, Kleanthes. 2003. *Prolific Domains: On the Anti-Locality of Movement Dependencies*. Amsterdam: John Benjamins.
- Haeseryn, Walter et al. 1997. *Algemene Nederlandse spraakkunst*, 2nd, revised edition. Groningen: Nijhoff.
- Harley, Heidi & Rolf Noyer. 1999. State-of-the-article, *GLOT* 4.4. 3-9.
- Hankamer, Jorge. 1974. Why are there two *than's* in English. In C. Corum et al. (eds.), *Papers from the Ninth Regional Meeting of the Chicago Linguistic Society*, 179-191. University of Chicago.
- Heim, Irene. 1999. Notes on superlatives. Ms. MIT.
- Jackendoff, Ray. 1983. *Semantics and Cognition*. Cambridge, MA: The MIT Press.
- Kayne, Richard S. 1994. *The Antisymmetry of Syntax*. Cambridge, Mass.: MIT Press.
- Kayne, Richard S. 2004a. Here and there, In C. Leclère, É. Laporte, M. Pirot, and M. Silberstein (eds.), *Lexique, Syntaxe et Lexique-Grammaire/Syntax, Lexis & Lexicon-Grammar: Papers in honour of Maurice Gross*, 253-273. Amsterdam: John Benjamins.
- Kayne, Richard S. 2004b. Some preliminary comparative remarks on French and Italian definite articles. Ms., New York University.
- Kayne, Richard S. 2005a. Some notes on comparative syntax with special reference to English and French. In Guglielmo Cinque and Richard S. Kayne (eds.), *The Oxford Handbook of Comparative Syntax*, 3-69. Oxford: Oxford University Press.
- Kayne, Richard S. 2005b. *Movement and Silence*. New York: Oxford University Press.
- Kayne, Richard S. 2022. Remarks on some linked English suffixes: *-ed*, *-er*, *-est*, *-ion*. Uil-OTS Syntax Interface Lectures, Utrecht. October 27, 2022
- Kennedy, Christopher. 2007. Vagueness and grammar: the semantics of relative and absolute gradable adjectives *Linguistics and Philosophy* 30. 1-45.
- Koopman, Hilda. 2000. Prepositions, postpositions, circumpositions, and particles: the structure of Dutch PPs. In *The syntax of specifiers and heads. Collected Essays*, Chapter 8. London/New York: Routledge. [Reprinted in G. Cinque and L. Rizzi (eds). 2010. *Mapping spatial PPs*. Oxford: Oxford University Press].
- Longobardi, Giuseppe. 2001. Formal syntax, diachronic minimalism, and etymology: The history of French *Chez*. *Linguistic Inquiry* 32. 275-302.

- Massaia, Marta. 2023. The syntax of simulation in Germanic. Handout, MiMa-project midway workshop, Utrecht University, 10-11-2023.
- Opprel, A. (1896). *Het dialect van Oud-Beijerland*. Publisher: unknown.
- Overdiep, Gerrit S. 1936. *Stilistische grammatica van het moderne Nederlandsch*. Zwolle: Tjeenk Willink.
- Marantz, A. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. In A. Dimitriadis, L. Siegel, C. Surek-Clark & A. Williams (eds.), *University of Pennsylvania Working Papers in Linguistics* 4.2, 201–225. University of Pennsylvania.
- Matushansky, Ora. 2008. On the attributive nature of superlatives. *Syntax* 11. 26-90.
- Pauwels, J.L. 1958. *Het dialect van Aarschot en omstreken*. Belgisch Interuniversitair centrum voor neerlandistiek.
- Postal, P. 1966. On so-called "pronouns" in English. In F. Dinneen (ed.), *Report of the seventeenth annual round table meeting on linguistics and language studies*, 177-206. Washington DC: Georgetown University Press.
- Postma, Gertjan. 2006. Van *groter dan* naar *groter als* – structurele oorzaken voor het verval van het comparatieve voegwoord *dan*. *Nederlandse Taalkunde* 11. 2-22.
- Ross, John Robert. 1964. *A Partial Grammar of English Superlatives*. Unpublished. University of Pennsylvania M.A. thesis, Philadelphia, Pennsylvania.
- Szabolcsi, Anna. 1983. The possessor that ran away from home. *The Linguistic Review* 3. 89-102.
- Shklovsky, Viktor. 1917. Art as Technique. In *Russian Formalist Criticism. Four Essays*. Translated by Lee T. Lemon, and Marion Reis, 3-57. Lincoln & London: University of Nebraska Press, 1965.
- Talmy, Leonard. 1975. Figure and ground in complex sentences. In: *Proceedings of the First Annual Meeting of the Berkeley Linguistics Society*, 419-430. UC Berkeley.
- Van der Sijs, Noline (samensteller). 2010. *Etymologiebank*. <https://etymologiebank.nl/>
- Van Kampen, Jacqueline. 2010. Anaforische middelen voor topicverschuiving. *Nederlandse taalkunde* 15. 189-210.
- Van Kampen, Jacqueline. 2012. Obviation properties of the Dutch d-pronoun. *Linguistics in the Netherlands* 29. 68-82.
- Van Riemsdijk, Henk. 1978. *A case study in syntactic markedness: the binding nature of prepositional phrases*. Lisse: Peter de Ridder Press.
- Van Riemsdijk, Henk & Edwin Williams. 1986. *Introduction to the Theory of Grammar*, Cambridge, Mass.: MIT Press.
- Weijnen, A.A. 1958. *Nederlandse dialectkunde*. Assen: Van Gorcum.
- Williams, Edwin. 1982. Another argument that passive is transformational. *Linguistic Inquiry* 13. 160–163.
- Zwarts, Joost. 2003. Vectors across spatial domains: from place to size, orientation, shape and parts. In E. van der Zee & J. Slack (eds.), *Representing Direction in Language and Space*, 39-68. Oxford: Oxford University Press.