Phrasal Proper Names in German and Norwegian

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Abstract This paper discusses the morpho-syntax of phrasal proper names like *Deutsche Bahn* 'German Railway' and *Norske Skog* 'Norwegian Forest' in German and Norwegian. As regards determiner elements, there are three types of phrasal proper names in German: some proper names do not have a definite article, some do, and yet others exhibit a possessive. Depending on the syntactic context, the first two types pattern the same as regards the presence or absence of the article but contrast with the third, where the possessive is always present. It is proposed that proper names in German vary in their structure as regards the presence of the DP-level: unlike articles, possessives have a referential marker, and a DP is obligatorily projected with the latter element. Norwegian is different. While proper names in Norwegian also vary in the presence or absence of determiners, there is no flexibility—determiners are always present or always absent, independent of the syntactic context. It is proposed that unlike in German, the DP-level in Norwegian is always present. As argued by Roehrs (Glossa J Gen Linguist, 5(1):1–38, 2020, https://doi.org/10.5334/gjgl.1267), phrasal proper names involve a regular syntactic derivation. Given that elements of regular DPs are sensitive to definiteness in Norwegian, it is proposed that Norwegian proper names involve an obligatory definiteness feature. As this feature surfaces in the

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DP-level, the latter must be present in that language in all instances. Besides this cross-linguistic difference, we document that phrasal PN may show features of recursivity evidenced most clearly in Norwegian.

Keywords Morpho-syntax · DP · Proper names · German · Norwegian

1 Introduction

Proper names (PN) have been of interest to many scholars. Linguistically, PN such as (1a) and (2a) have received a lot of attention (e.g., Longobardi 1994; Matushansky 2008; Muñoz 2019). We will label this type INHERENT PN. PN such as (1b) and (2b) have not been discussed much (but see Allerton 1987; Roehrs 2020). We will call the latter PHRASAL PN:

(1) a. Peter   (German)
         Peter
         'Peter'
     b. Deutsche   Bahn   [company]
         German   *Railway*
         'German   Railway'
(2) a. Per   (Norwegian)
         Peter
         'Peter'
     b. Norske   Skog   [company]
         Norwegian *Forest*
         'Norwegian   Forest'

Phrasal PN in German and Norwegian are hybrid elements: semantically, they are referential like inherent PN; unlike inherent PN though, they have descriptive meaning similar to ordinary DPs (Lyons 1999, 21).[1]

   Syntactically, PN in German take the shape of ordinary DPs (3a). Indeed, they can be quite complex (3b), which includes syntactically indefinite patterns (3c):

(3) a. Die   Neue   Frau   [magazine]   (Ge)
         The   *New*   *Woman*
         'The New Woman'
     b. Institut für   Sprach   und   Literaturwissenschaft [department]
         Institute *For* *Language* *And* *Literature.science*
         'Institute for the Study of Language and Literature'

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[1] While the descriptive meaning of phrasal PN is usually transparent, the reference of these PN is not clear in all cases (e.g., Weber 2004, 287); for instance, *Norske Skog* 'Norwegian Forest' is the name for a company. Consequently, we will provide the semantic category in brackets. This category will be included in the Lexical Entries of these PN below. Note also that the line-by-line gloss will only involve categories that are directly relevant to our discussion. Abbreviations are as follows: SG = singular, PL = plural; MASC = masculine, NEUT = neuter, FEM = feminine, COM = common, ST = strong ending, WK = weak ending, PRT = particle.

c. Ein   Himmel   voller   Betten   [store]

   A   Heaven   Full.of   Beds

   'A Heaven Full of Beds'

Similar facts hold for Norwegian:

(4) a. Den   lille   sjokoladefabrikk-en   [company]   (Nw)

   The   Little   Chocolate.factory-DEF

   'The Little Chocolate Factory'

b. Institutt   for   lingvistiske   og   nordiske   studier   [department]

   Institute   For   Linguistic   And Nordic   Studies

   'Institute for Linguistic and Nordic Studies'

c. En   Liten   Øl   [company]

   A   Small   Beer

   'A Small Beer'

We will focus on the syntactically definite PN and only briefly discuss syntactically indefinite PN. Thus far, it appears that German and Norwegian pattern the same.

However, as we will lay out in the course of this paper, there are also a number of striking differences. One of the major distinctions between the two languages involves the obligatory presence of determiners in German vs. in Norwegian when phrasal PN occur in argument position:

(5) a. *(Die)   Deutsche Bahn   ist   eine große   Eisenbahngesellschaft. (German)

   the   German   Railway is   a   big   railway.company

   'German Railway is a big railway company.'

b. Norske   Skog   er   en   stor produsent av   publikasjonspapir . (Norwegian)

   Norwegian Forest   is   a   big   producer   of   publication.paper

   'Norwegian Forest is a big producer of printing paper.'

Note that while the phrasal PN in German seems to behave like a typical singular count noun phrase in that it requires the presence of a determiner, its Norwegian counterpart does not. Conversely, when phrasal PN appear in non-argument position such as part of a complex compound, German does not allow an article but Norwegian does:

(6) a. der   junge   "(*Der) SPIEGEL"-Journalist   [magazine]   (Ge)

   the   young   The   Mirror-journalist

   'the young Mirror journalist'

b. ? den unge   "Den   Røde   Frakk-en"-ekspeditør-en   [store]   (Nw)

   the   young   The   Red   Overcoat-DEF-sales.clerk-DEF

   'the young Red Overcoat salesclerk'

Turning to morphology, it is well known that adjectives in German inflect in accordance with their syntactic context. For instance, if a definite article is present, adjectives have a weak inflection; if there is no determiner, adjectives have a strong inflection. This is often referred to as the strong/weak alternation of adjectives (for background discussion, see Harbert 2007, 134–35 and references cited therein). Interestingly, we find the same with phrasal PN:

(7) a. das   Deutsch-e   Historisch-e   Museum [museum] (Ge)
         the   German-WK   Historical-WK   Museum
         'the German Historical Museum'
     b. Deutsch-es   Historisch-es   Museum
         German-ST   Historical-ST   Museum
         'German Historical Museum'

As such, phrasal PN in German pattern like ordinary DPs morphologically as well.

Some (other) interesting differences emerge in Norwegian, where weak endings on adjectives are possible, even when a definite determiner is absent. Compare German (8a) to Norwegian (8b). Furthermore, a weak adjective can also be followed by a strong one under certain conditions (8c):

(8) a. * Deutsch-e   Historisch-e   Museum   (Ge)
           German-WK   Historical-WK   Museum
     b. Stor-e   norsk-e   leksikon   [reference book] (Nw)
         Big-WK   Norwegian-WK   Encyclopedia
         'Big Norwegian Encyclopedia'
     c. Ny-e   Norsk-Ø   Tilhengersenter [company]
         New-WK   Norwegian-ST   Car.trailer.center
         'New Norwegian Car Trailer Center'

Besides these syntactic and morphological differences between German and Norwegian, we will illustrate other, related distinctions of these types of phrasal PN. All these differences can be summarized as follows. If a possessive determiner is part of the PN in German, it must be present in all contexts. The definite article fares differently in this language: it must be left out in compound-type structures, in vocatives, or when a demonstrative or possessive is present; it can be left out in certain kinds of listings; and it must be present when the PN occurs in argument positions. In Norwegian, there is no such variation—whatever shape the phrasal PN appears in in the original context, the environment showcasing the official name, its form will not vary in other environments. We will propose for German that phrasal PN with a possessive are frozen at the DP-level. In contrast, phrasal PN with or without a definite article are frozen below the DP-level. As for Norwegian, phrasal

PN are invariably frozen at the DP-level. We propose that the latter language involves an obligatory definiteness feature.

In the context of this proposal, other differences involving more complex phrasal PN will be discussed. Both languages allow, with certain qualifications, phrasal PN to be embedded under the adjective for 'new' and a few others. This yields a new phrasal PN referring to a different entity. Since the newly formed PN are derived on the basis of other PN, we propose that PN formation is recursive. Again, both languages do not pattern the same here. Unlike *neu-* 'new' in German, *nye* 'new' (with a weak ending) in Norwegian can be followed by a possessive or an adjective with a strong ending, leading to some surface strings that are not possible in regular DPs. We suggest that these unexpected strings indicate different domains within the larger nominal structure. These domains vary cross-linguistically, being a function of the vocabulary elements inside the Lexical Entries. The facts in Norwegian will follow from the proposal that phrasal PN in that language are frozen at the DP-level and that *nye* forms the head of a functional phrase that selects an existing proprial DP. With German not exhibiting any morpho-syntactic indications of different domains, we propose that the latter language involves a regular but complex nominal.

More generally, we will point out that given that proprial articles can and sometimes must be left out with phrasal PN in German (indicating the absence of the DP-level) and that phrasal PN are clearly recursive in Norwegian (where the higher DP-level involves no referential element), it seems unlikely that referentiality originates in the DP-level.

The paper is organized as follows. In Sect. 2, we review some German data that will set the stage for the subsequent comparison with Norwegian. After discussing a recent proposal in Sect. 3, we turn to the discussion of Norwegian in Sect. 4, illustrating certain differences to German. On the basis of these distinctions, Sect. 5 refines the previous proposal. We close the paper in Sect. 6.

2 DP-Level of Phrasal PN in German

Phrasal PN in German exhibit differences in the DP-level. Depending on the syntactic context, we can identify three types of PN in German as regards determiners. In the so-called original context, some PN have no definite article, some do, and yet others have a possessive element. In other non-argument environments, the presence of the definite article varies: the article can be added or left out in list contexts, but it must be absent in compound-type structures and vocatives. We will also see that the definite article can be replaced by a demonstrative or a possessive. Finally, in argument position, determiners are obligatory. After illustrating these points, the different properties of these PN are summarized in Table 1.

Before we start, a brief note on spelling in German is in order (also Nübling et al. 2015, 86ff). With the exception of determiners, prepositions, and particles, the elements of PN are usually capitalized. In fact, sometimes a whole element involves capital letters (e.g., *Der SPIEGEL* 'The Mirror'). However, capitalization is not

entirely consistent and cannot be used to identify what belongs to a PN (cf. the capitalization of the adjective in (9b) vs. (11b) below). In the gloss, we indicate by capitalization what belongs to the PN. The translation follows the gloss closely. With a few exceptions, this includes capitalization.

2.1 No Determiner in Original Context

We start with the context where complex PN appear in public, that is, on company logos, name signs, etc. Following Roehrs (2020), we will refer to this environment as ORIGINAL CONTEXT, and we take this string to be the official name. As seen in (9), some PN do not have a determiner:

(9) a. stern   [magazine] (Ge)
         Star
         'Star'
     b. Neue   Post [magazine]
         New   Mail
         'New Mail'

The absence of the determiner seems to be confirmed by contexts where PN occur as part of compounds (10a) (Schlücker 2018).[2] Furthermore, it is possible to add a definite determiner such as a definite article or, importantly, a demonstrative (10b). Finally, a possessive determiner can also be added (10c):

(10) a. der   junge "(*die) Neue Post"-Journalist   (German)
          the   young   the   New   Mail-journalist
          'the young New Mail journalist'
      b. Mann, die / diese Neue Post   ist   verdammt teuer   geworden!
          man   the / this   New   Mail   is   darn   expensive become
          'Boy, the / this New Mail has become darn expensive!'
      c. Ach,   meine   Neue Post   fehlt   mir   aber!
          oh,   my   New   Mail   misses me   PRT
          'Oh, I am really missing my New Mail!'

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[2] For the discussion of phrasal compounds such as *employee of the month competition*, see Lieber (1988). Lieber argues that the first part, the modifier, is indeed phrasal: the stress patterns of these compounds involve the Nuclear Stress Rule (and the Compound Stress Rule). As such, these compounds are taken to be assembled in the syntax (but see also Wiese 1996). Given that the current PN also involve phrasal stress patterns (Roehrs 2020), we assume that compounds involving phrasal PN are built in the syntax as well. Interestingly, Lieber observes that articles cannot be part of these compounds (i.a) but possessives can (i.b) (examples from Lieber 1988, 206):

(i) a. those [(*a) salad and some soup] suppers
     b. a [*(a) dog's head] shadow

 This is similar to what we will see in the discussion of phrasal PN as part of compounds. Lieber concludes that there must be some independent reason as to why articles cannot appear in (i), and we assume that the same explanation holds for phrasal PN.

2.2 Definite Article in Original Context

There are also some PN that have a definite article in the original context:

(11)　a.　Der　SPIEGEL　　　　　　　　[magazine]　(Ge)
　　　　　　The　Mirror
　　　　　　'The Mirror'
　　　b.　Das　kleine　　　Weinlokal　[restaurant]
　　　　　　The　Little　　　Wine.pub
　　　　　　'The Little Wine Pub'

Note though that this article must be left out in compound contexts as well (12a). In fact, it can be replaced by a demonstrative (12b) or a possessive determiner (12c):

(12)　a.　der　　junge　"(*Der)　　SPIEGEL"-Journalist　　　　　　　　　　(German)
　　　　　　the　　young　The　　　Mirror-journalist
　　　　　　'the young Mirror journalist'
　　　b.　Mann,　dieser　SPIEGEL　ist　　　　　　　verdammt　teuer　　　geworden!
　　　　　　Man　　this　　Mirror　　is　　　　　　　darn　　　expensive　become
　　　　　　'Boy, this Mirror has become darn expensive!'
　　　c.　Ach,　　mein　SPIEGEL　fehlt　　　　　　mir　　　aber!
　　　　　　oh,　　my　　Mirror　　misses　　　　me　　　PRT
　　　　　　'Oh, I am really missing my Mirror!'

Observe that with the exception of the original context, this type of PN behaves the same as that discussed in the previous subsection. Specifically, a definite article can be absent in non-argument position (12a), but a determiner including a definite article (see Subsect. 2.4) must be present in argument position (12b,c). In view of these different distributions, we point out already here that the presence of the definite article in German varies according to syntactic context (e.g., non-argument position vs. argument position).

2.3 Possessive in Original Context

There is a third type of phrasal PN that exhibits a possessive, either a possessive determiner or a Saxon Genitive:

(13)　a.　Dein　　　Telefonladen　[store]　(Ge)
　　　　　　Your　　　Phone.store
　　　　　　'Your Phone Store'
　　　b.　Conny's　Container　　　[store]
　　　　　　Conny's　Container
　　　　　　'Conny's Container'

Contexts involving compounds pattern differently here. While perhaps not entirely perfect, the possessive determiner can be present in such contexts (14a). In fact, the

possessive determiner cannot be exchanged by a definite article, a demonstrative, or a different possessive (14b) without changing the status of the PN (# indicates the loss of PN status):

(14) a. ? der   junge   "Dein Telefonladen"-Verkäufer   (German)
              the   young   Your   Phone.store-shop.assistant
              'the young Your Phone Store shop assistant'
      b. # der /   dieser /   mein Telefonladen
              the /   this /   my   phone.store
              'the / this / my phone store'

Note that (14a,b) differ from the two cases discussed above: (14a) has a determiner element present, and (14b) does not allow this determiner to be replaced by another determiner including a different possessive. To be clear, possessive determiner elements in phrasal PN are obligatorily present. To take stock thus far, there are three types of phrasal PN as regards determiners.

2.4 Presence or Absence of the Definite Article in Other Contexts

Besides the original context, there are other non-argument environments PN can occur in. For instance, they can be found in various listings, entries in reference books, etc. In these contexts, the definite article can be added when it is absent in the original context (15a), or it can be left out when it is present in the original context (15b) (also Kolde 1995, 404; Nübling et al. 2015, 81). This yields a syntactically optional article in these types of contexts. In contrast, a possessive cannot be left out without changing the status of the PN (15c):

(15) a.   (die)   Deutsche Bank   [bank] (Ge)
              the   German   Bank
              'the German Bank'
      b.   (Die)   Neue   Frau
              The   New   Woman
              'The New Woman'
      c. # Telefonladen
              phone.store
              'phone store'

As far as we have been able to establish, the presence or absence of the definite article in (15a,b) is somewhat random and seems to depend on the individual choice made by the author of the list.

Next, consider vocatives. In this context, a definite article is not possible (16a,b). PN with possessives fare better although they are still a bit marked (16c):

(16) a. Hey, (*die) Neue   Post,   warum   hast du die   Preise   schon wieder   (Ge)
         hey   the   New   Mail   why   have you the   prices   already again
         erhöht?
         increased
         'Hey, New Mail, why have you increased your prices once again?'

    b.   Hey,   (*Der) SPIEGEL,   warum hast du die Preise schon wieder erhöht?
         hey   The   Mirror   why   have you the prices already again   increased
         'Hey, Mirror, why have you increased your prices once again?'

    c. ? Hey,   Dein   Telefonladen, warum hast du die Preise schon wieder
         hey   Your   Phone.store   why   have you the prices already again
         erhöht?
         increased
         'Hey, Your Phone Store, why have you increased your prices once again?'

Finally, PN in argument position are different. Here, a determiner element must be present with all types of phrasal PN (also van Langendonck 2007, 18). This is illustrated with a PN that lacks a definite article in the original context:

(17) a. *(Die) Deutsche Bank   ist   groß. (German)
           the   German   Bank   is   big
         'The German Bank is big.'
    b.   für   *(die)   Deutsche Bank
         for   the   German   Bank
         'for the German Bank'

The same holds for PN in the plural, which refer to unique sets of elements or events:

(18) a. (die)   Schlesische(n) Kriege [historical events]   (Ge)
         the   Silesian   Wars
         'the Silesian Wars'
    b.   # Schlesische Kriege   waren grausam.
           Silesian   wars   were   cruel
         'Silesian wars were cruel.'
    c.   Die   Schlesischen   Kriege waren   grausam.
         the   Silesian   Wars   were   cruel
         'The Silesian Wars were cruel.'

More generally, the obligatory presence of determiners when phrasal PN occur in argument position in singular or plural contexts means that phrasal PN project (definite) DPs; that is, they are subject to regular syntactic constraints.

Abstracting away from adjectives contained in the phrasal PN, the above discussion is summarized in Table 1 ((+) = already present in the original context; [+] = replacing article from original context).

Table 1 Presence of determiner elements in phrasal PN in German

Type of PN	Determiner in					Possible presence of		
	original cont.	comp.	voc.	lists	arg. pos.	article	dem	poss
Noun	−	−	−	−/+	+	+	+	+
Art. Noun	+	−	−	−/+	(+)	(+)	[+]	[+]
Poss. Noun	+	(+)	(+)	(+)	(+)	−	−	(+)

With the exception of the original context (second column in Table 1), the first two types of PN pattern the same. Although treating these two cases the same may yield a simpler account for German, it will become clear in Sect. 4 that the original context in Norwegian fixes the shape of the PN in the latter language (i.e., PN in Norwegian are 'frozen' in appearance). As such, we assume that the original context indicating the presence or absence of the definite article is also important in German. This is in agreement with Payne and Huddleston (2002, 518), who argue that English periodicals have no articles as part of their official names (our original context) but that these names are used with articles in most contexts.

Since the definite article can be left out or be exchanged by another determiner, Roehrs (2020) proposes that this proprial article is an expletive element similar to *der* in *der Peter* '(the) Peter' (see Longobardi 1994; Nübling et al. 2015, 123ff). Below, we will follow Roehrs (2020) in making a distinction between the proprial core and the left periphery of phrasal PN.[3] We will propose that if the definite article does not appear in the orginal context, it is not part of the PN; more precisely, it is not in the Lexical Entry. If the definite article is present in the original context, it is part of the Lexical Entry but not its proprial core (i.e., it has no—what we call for now—referential marker). As such, all definite articles are part of the left periphery of PN. Finally, the possessive is part of the Lexical Entry and the proprial core of the PN. Given this, note already here that the proprial core and the left periphery are not structurally fixed in German—they are relative notions that depend on the type of the determiner present (as we will see below, this is different in Norwegian).

2.5 Some Diagnostics of Phrasal PN

As illustrated above, phrasal PN in German resemble ordinary DPs: morphologically, their inflections vary depending on the context (e.g., the presence or absence of an article; for different morphological cases, see below); syntactically, their appearance differs as regards the presence or absence of the definite article (e.g., when in argument

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[3] Roehrs (2020) uses the label 'referential core' instead of 'proprial core'. Here, we prefer the more neutral term, which covers both the semantics and the syntax.

vs. non-argument position) (see also, e.g., Payne and Huddleston 2002, 517; Weber 2004). Schlücker (2018, 282) observes that "[s]peakers encounter new names on a daily basis. This means that only a small percentage of all existing names is known beforehand to language users." Given these points, we need to provide some diagnostics that justify the distinction between phrasal PN and ordinary DPs.

As already mentioned in the introduction, phrasal PN have some intriguing properties. Allerton (1987, 64–69) provided a brief discussion of some properties of phrasal PN in English. In the context of German, Roehrs (2020) made this discussion more formal and added to it. Some of these points are reviewed below. We focus on the comparison of phrasal PN and definite DPs.

Starting with the semantics, phrasal PN are similar to definite DPs in some respects. As already noted, both have descriptive meaning, they are definite in interpretation, and they are referential. The first characteristic, descriptive meaning, was already discussed and illustrated above. As to the definiteness interpretation, it is well known that definite DPs exhibit a Definiteness Effect in existential *there*-constructions (19a,b) (Milsark 1974). The same goes for inherent PN (19c) and phrasal PN (20):[4]

(19) a.   There is a man in the garden.
      b. *   There is the man in the garden.
      c. *   There is Peter in the garden.

(20) a. *   There is King's College in Cambridge.
      b. *   There is Penny Lane in Liverpool.
      c. *   There is Griffy Lake/Lake Monroe in Bloomington.

Continuing with the third property, both phrasal PN and definite DPs are referential in that the DPs in (21a) and (21b) pick out a referent in the world:

(21) a. Das   Deutsche   Historische   Museum   ist   in   Berlin.   (German)
          the   *German*   *Historical*   *Museum*   *is*   *in*   *Berlin*
          'The German Historical Museum is in Berlin.'
      b. Der   große   braune   Hund   steht   am   Berliner   Rathaus.
          the   *big*   *brown*   *dog*   *stands* *at.the* *Berlin*   *City.hall*
          'The big brown dog is standing at the City Hall of Berlin.'

However, the conditions that bring about referentiality here are not the same. The phrasal PN in (21a) refers to the same unique entity independent of linguistic context; for instance, the phrasal PN can occur in different situational contexts, and the reference is still the same. In contrast, the reference of the definite DP in (21b) may vary depending on the situational context (Kroeger 2019, 21). Indeed, Lyons (1999, 21–22) makes the distinction between inherently unique definites and

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[4] It is sometimes claimed that German does not have a Definiteness Effect (Haeberli 2002, 270ff). Consequently, we provide English examples here (for a survey of the Definiteness Effect, see Lyons 1999, Chap. 6; Zamparelli 2000).

contextually unique definites.[5] In this vein, Kripke (1971) states that proper names are rigid designators; that is, they refer to the same entity in all possible worlds (also Heim and Kratzer 1998, 304; for detailed empirical discussion of inherent PN as regards rigidity and transparent/*de re* readings, see Longobardi 1994, 637–39).

In his discussion of referentiality, Longobardi (1994) makes a distinction between (inherent) PN and definite DPs. To begin, he argues that referentiality is related to the D-position. He shows that besides PN (and pronouns), common DPs preceded by a definite article can have specific definite interpretations. He proposes that this interpretation is derived in the D-position. Specifically, he argues that raising N to D yields this interpretation and that the proprial article is an expletive element (Longobardi 1994, 648–50, 655). In the appendix of this work, Longobardi suggests that all D-positions are universally generated with the abstract feature [±R(eferential)]. If [+R] is checked, it yields a grammatical derivation involving referentiality. Importantly, only PN (and pronouns) can check this feature, but common definite DPs cannot. Crucially, the D-position, and thus the presence of the DP-layer, is taken to be responsible for referentiality. That the DP-level is related to referentiality appears to be problematic though. This can be seen with certain cases of anaphoric reference, which will also exhibit another difference between PN and common nominals.

It was pointed out above that the definite article must be left out in compound structures (and vocatives) in German. As is clear from anaphoric reference, PN as part of compounds may still refer, but ordinary nouns may not. Specifically, while it is possible to establish coreference in (22a), this is (usually) impossible in (22b) (Haspelmath 2002, 156–60, 2011, 50–51; Schlücker 2018, 290–92; but see also Ward et al. 1991; Alexiadou 2019, who provide instances where the (b)-type of example is possible; LM stands for linking morpheme). Following Ward et al. (1991), we use italics to indicate the anaphoric relation between the antecedent and the pronoun (but remain agnostic here about the nature of this relation):[6]

(22) a. Das ist die neue "*SPIEGEL*"-Idee. *Er* hat *sie* scharf   verteidigt. (German)
          this is   the new   Mirror-idea   it   has *her strongly defended*
          'This is the new Mirror idea. It defended it strongly.'

     b. * Das ist die neue *Hund*-e-hütte.   *Er* hat *sie* nicht   gemocht.
          this is   the new   dog-LM-*hut*   he   has her   not   liked*
          'This is the new kennel. He did not like it.'

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[5] Lyons makes this distinction in the context of inherent PN, but it seems straightforward to extend this to phrasal PN. Interestingly, he relates PN to unique definites like *the sun* but points out that the latter must have an article while (inherent) PN do not, at least not in English. Furthermore, unique definites involve singleton sets while PN are often claimed to involve individuals (for further critical discussion, see Lyons 1999, 22, and below).

[6] The (a)-example is adapted from Schlücker (2018, 291, ex. (17a)), repeated here in (i):

(i) die Merkel$_i$-Pläne, die   sie$_i$ scharf   verteidigt
     the Merkel-plans   which she   strongly defends
     'the Merkel plans, which she strongly defends'

Note that an optional article as in *(die) Merkel* '(the) Merkel' is not possible with inherent PN either; compare (12a) to *der (*die) Merkel-Plan* 'the Merkel plan'. Having said that, inherent PN do take non-restrictive modifiers in these constructions as is very clear from English examples like *good-old-Obhama admirer*.

In other words, phrasal PN do not depend on the presence of the definite article to be referential. As already mentioned, Longobardi (1994) proposes for inherent PN that this element is an expletive article. Above, we sided with Longobardi and assumed that this is also true of phrasal PN. Now, if the obligatory absence of the article coincides with the absence of the DP-level in the compound modifier, then the referentiality of PN is not related to that phrasal layer (but the referentiality of common DPs may well be).[7]

To be clear then, while other elements (e.g., definite DPs) can also be referential, the referentiality of phrasal PN is different. For current purposes, we assume it is inherent with PN, and we will label this semantic property as 'proprial' referentiality. Given the above discussion of definiteness, we follow the tradition in the literature (e.g., Payne and Huddleston 2002, 517, 520) and take phrasal PN to be definite in interpretation. Thus, we assume that proprial referentiality entails definiteness.

Turning to the syntactic diagnostics, phrasal PN are frozen. They are fixed as regards morphological number; for instance, if singular, they cannot be pluralized.[8] Furthermore, restrictive adjectives (but see also below), degree elements, or numerals cannot be added, and elements that are part of the PN cannot be substituted by other elements (e.g., question words). In addition, elements cannot be reordered within the PN, there is no subextraction out of PN, and no elements can be omitted (although the head noun of the PN can be elided).[9] All these properties have been discussed in detail in Roehrs (2020). Here, we illustrate the frozenness of phrasal PN by the impossibility of adding a degree word (23a) and the impossibility of DP-internal reordering (23b,b'):

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[7] Alternatively, if the DP-level is present in the modifier of the compound (i.e., the determiner is only deleted on the surface; cf. the possible presence of possessives), then we can state that the PN cannot undergo N-raising to the D-position of the modifier as the PN is a phrasal element. Note, however, that although the [+R] feature is not checked, the modifier is still referential. Furthermore, notice that movement of the lower part of the phrasal PN to Spec,DP of the modifier is presumably not possible either as it is not evidenced independently (and may be out for independent reasons, see momentarily). Indeed, this lack of movement may provide a handle on another point, raised by a reviewer.

 It is sometimes argued that (inherent) PN involve null proprial articles in languages like English (e.g., Muñoz 2019; cf. also Matushansky 2008, 607–08 and the null D-element in Longobardi 1994, 628–32). PN in German may have different forms: inherent PN occur in argument position with an optionally overt article (e.g., *(der) Peter* '(the) Peter'), but phrasal PN have an obligatorily overt article, both in the singular and plural. This presents a major difference between the two types of PN. Now, while this paper is not meant to provide a detailed comparison of inherent vs. phrasal PN (for a few remarks, see Roehrs 2020), their structural difference (head vs. phrase) may help account for the distinction between (possibly) null articles with inherent PN vs. (necessarily) overt articles with phrasal PN.

 Specifically, let us assume that inherent PN (may) involve a null expletive article. If present, suppose that this null article must be licensed, for instance, by the inherent PN undergoing head movement from N to D (at LF in Germanic, cf. Longobardi 1994, 640–46). As to phrasal PN, if the latter involve indeed phrases, then these types of PN cannot undergo N-raising. Furthermore, we will argue below that they are frozen (at least) up to right under the DP-level. If so, these structures cannot undergo movement to Spec, DP either as that would involve anti-local movement (from the complement position of a head to its specifier; see, e.g., Abels 2003). As such, a null article would not be licensed with phrasal PN (for some remarks on Norwegian, see Footnote 22). While we have to leave the details of these ideas for future research, it is clear that phrasal PN may differ from inherent PN as regards the presence of the definite article.

[8] Below, we assume that number involves a syntactic feature in NumP.

[9] In a number of ways, this is similar to restrictions at the word-level (for discussion and references of the Lexical Integrity Hypothesis, see Gallego 2016).

(23) a. | das | (#sehr) | Alte | Testament | [bible] | (Ge) |
|---|---|---|---|---|---|
| *the* | *very* | *Old* | *Testament* | | |

      'the Old Testament'

b. | Conny's | Containter |
|---|---|
| *Conny's* | *Container* |

      'Conny's Container'

b.' | # der | Container | Conny's | / | | von | Conny | / | der | Conny |
|---|---|---|---|---|---|---|---|---|---|
| *the* | *container* | *Conny's* | / | | *of* | *Conny* | / | *the.GEN* | *Conny* |

      'the container of Conny's'

As to the morphology, we illustrated in the introduction that the strong/weak alternation of adjective endings works the same in phrasal PN as in ordinary DPs. This includes inflections inside phrasal PN (cf. (7a,b)). Furthermore, the proprial article also changes its form according to the syntactic context. Compare (24a) to (24b), where *der* has been changed to *des*. Indeed, this may also involve the varying inflection on a noun inside a phrasal PN (24c). Thus, these properties do not differentiate the two types of noun phrases. As far as we know, there is only one (minor) morphological difference between phrasal PN and ordinary DPs that helps distinguish them: ordinary nouns must have a genitive ending (24a) whereas nouns as part of PN may optionally not (24b) (Nübling 2012):[10]

(24) a. | das | Zerbrechen | des | Spiegel-s | (German) |
|---|---|---|---|---|
| *the* | *shattering* | *the.GEN* | *mirror-GEN* | |

      'the shattering of the mirror'

b. | die | Berichterstattung | des | SPIEGEL(-s) |
|---|---|---|---|
| *the* | *reporting* | *The.GEN* | *Mirror-GEN* |

      'the reporting of the Mirror

c. | Jahrestagung | des | Institut-s | für | Deutsche | Sprache |
|---|---|---|---|---|---|
| *annual.convention* | *the.GEN* | *Institute-GEN* | *For* | *German* | *Language* |

      'annual convention of the Institute for the German Language'

This inflectional difference between (24a) and (24b) is presumably due to the presence of a referential marker on the PN in (24b) (see next section). This tendency toward morphological invariability of PN is often referred to as *Schemakonstanz* ('schema constancy') in the German literature (e.g., Nübling 2017).

Finally, beside the above properties, PN can also be recognized in certain semantic/pragmatic contexts; for instance, it is clear that *Conny's Container* in (25a) is not some kind of bin but rather a store. Similarly, *Der SPIEGEL* in (25b) is not an object in the house but rather a magazine:

---

[10] Note also for (24c) that prepositions typically take an article in the context of a modified ordinary noun: für die deutsche Sprache.

(25) a. Ich   habe   ein   T-shirt   in   Conny's   Container gekauft. (German)
          I   *have*   *a*   *t-shirt*   *in*   *Conny's*   *Container* *bought*
          'I bought a t-shirt in Conny's Container.'

     b. Sie   hat   den   SPIEGEL   gelesen.
          she   *has*   *The*   *Mirror*   *read*
          'She read the Mirror.'

The overall picture that emerges is that while phrasal PN resemble ordinary DPs on the surface, they exhibit some distinguishing properties. Most importantly for current purposes, operations that change the syntactic shape of the proprial string are severely restricted. Roehrs (2020) proposes that phrasal PN are frozen to certain syntactic operations. He proposes that phrasal PN have a derivation similar to that of ordinary DPs. However, further derivational options are constrained by the presence of a referential marker that is part of the Lexical Entries of phrasal PN. This referential marker yields a type of freezing of the PN to certain syntactic operations. In the next section, we will review some of the details of Roehrs' proposal. This will set up the contrastive discussion of German and Norwegian in the later sections.

3 Previous Proposal

As seen above, phrasal PN have special properties. The following proposal has two parts. In the first subsection, we discuss the acquisition of phrasal PN, which we take to be a one-time memorization procedure yielding complex Lexical Entries. The second subsection addresses the derivations of phrasal PN, which may vary depending on the syntactic context (e.g., argument vs. non-argument position).
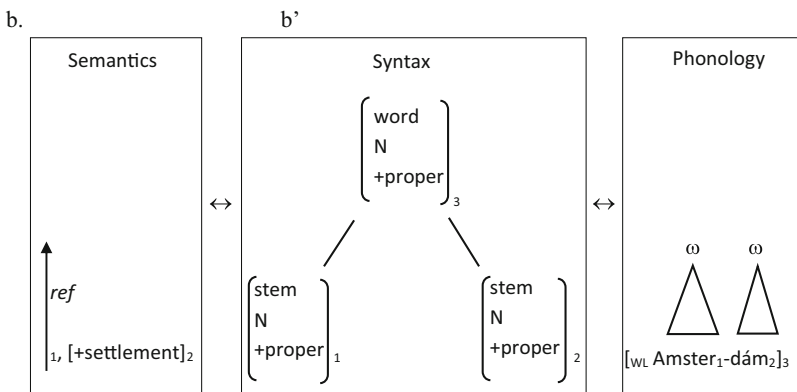
3.1 Proprialization and Lexical Entries of Phrasal PN

Roehrs (2020) follows Nübling et al. (2015, 16f) in calling this type of PN formation PROPRIALIZATION. He proposes that the current cases involve a memorization procedure that marks a set of lexical and functional items as being (part of) a proper name. This procedure consists of three steps. First, regular lexical and functional vocabulary elements are taken from the lexicon. Second, these elements receive a referential marker. Finally, Proprialization collects these marked elements in a set and stores this set in the lexicon. To be clear, the formation of a phrasal PN is a one-time procedure bringing about the creation of a Lexical Entry, the result being that the language user has acquired the phrasal PN and has stored it in their lexicon (for

more details, see the above-mentioned works).[11] Consider the resultant Lexical Entries in more detail.

Discussing PN for place names in Dutch such as *Amsterdam* in (26a), Köhnlein (2015) proposes a tripartite Lexical Entry consisting of a semantic, a syntactic, and a phonological component. Focusing on the first two parts here, he fleshes out the referential marker by positing a referential pointer, a category label, and the feature [+proper].[12] Specifically, the semantic component involves a referential pointer marked by ↑ and a category label indicated by [+settlement] as in (26b). In the syntax, the elements are marked by the feature [+proper] as in (26b'). The individual components interact with one another indicated by the double arrow below ((26b,b') is taken from Köhnlein 2015, 201):

(26) a. $[\text{Amster}_1\text{-dam}_2]_3$

b.   b'

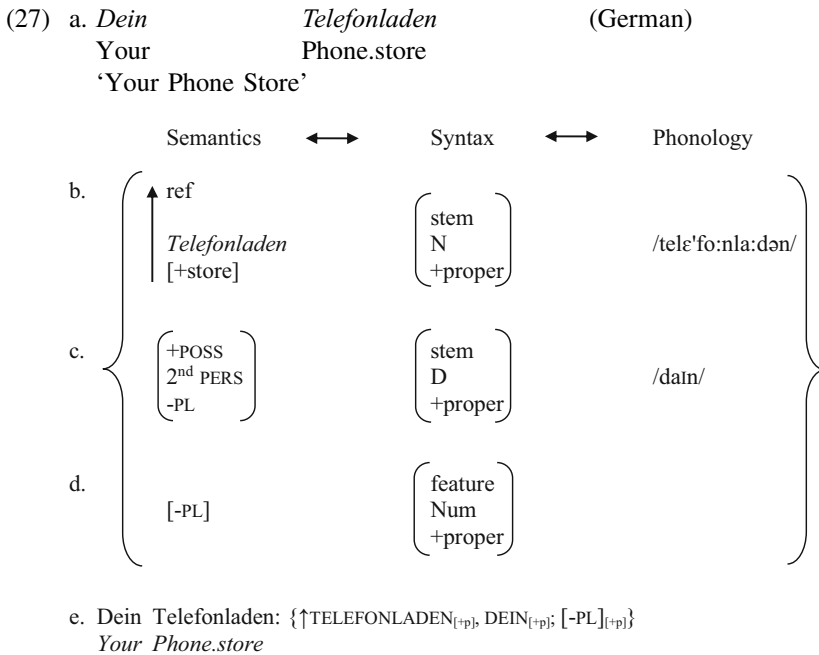| Semantics	Syntax	Phonology
ref ↑ ↔ $\begin{bmatrix} \text{word} \\ \text{N} \\ \text{+proper} \end{bmatrix}_3$		$\omega \quad \omega$
$_1$, $[\text{+settlement}]_2$	$\begin{bmatrix} \text{stem} \\ \text{N} \\ \text{+proper} \end{bmatrix}_1 \quad \begin{bmatrix} \text{stem} \\ \text{N} \\ \text{+proper} \end{bmatrix}_2$ ↔	$[_{WL} \text{Amster}_1\text{-dám}_2]_3$

Semantically, the postulation of a referential pointer yields the unique reference of a PN, and the category label specifies whether this is a name for a person, a city, a company, etc. Syntactically, the feature [+proper] distinguishes these elements from those of an ordinary DP accounting for certain morpho-syntactic differences between the two.

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[11] Proprialization of vocabulary elements yielding Lexical Entries has certain similarities to Bundling of features yielding (simple) lexical items—the former involves "bundling" of lexical items yielding sets (for the latter, see Chomsky 2000, 101, 2001, 10f; Gallego 2016, 138). Note that Proprialization, as conceived here, and Bundling are essentially part of lexicalist approaches to the interaction of the lexicon and syntax (for the discussion of lexicalist and non-lexicalist approaches, see Gallego 2016 and references cited therein, also Footnote 17; for an alternative view assuming lexical licensing, rather than lexical insertion, see Jackendoff 1997).

[12] Other terms similar to 'referential pointer' seem to be 'index' or what Bach (1989, 10) calls "a sort of Universal Identification Number". According to Kroeger (2019, 17), reference intuitively has to do with "the speaker's use of words to 'point to' something in the world; that is, to direct the hearer's attention to something, or to enable the hearer to identify something". We believe that this captures the essential meaning of the aforementioned terms. Indeed, a reviewer points out that the referential pointer might be relatable to an index that has been employed to account for the rigid referentiality of anaphoric definites or demonstratives as discussed, among others, by Schwarz (2009) and Simonenko (2013). We will leave the exploration of this possibility to formal semanticists and continue using the convenient label of referential pointer.

Discussing differences between compound-type PN in Dutch and phrasal PN in German, Roehrs (2020) extends Köhnlein's (2015) analysis by proposing that phrasal PN involve a list of unordered, multi-component vocabulary elements. This yields a complex Lexical Entry, a fixed set of vocabulary elements stored in the lexicon. As in Köhnlein, these Lexical Entries have three components: a semantic, a syntactic, and a phonological one.

Let us discuss the three types of phrasal PN from Sect. 2 by starting with (27a). To avoid redundancy, Roehrs assumes that there is only one referential pointer present, and he assigns it to the noun along with the category label (27b). The possessive pronominal is a determiner (27c), and the number specification is a feature taken to be in Num, the head of a NumP (27d). The elements marked by [+proper] form the proprial core, that is, obligatorily present elements, of the PN. Stored sets are indicated by curly brackets. Leaving out the category label, a convenient shorthand for (27b–d) is (27e) ([+p] stands for [+proper]):[13]
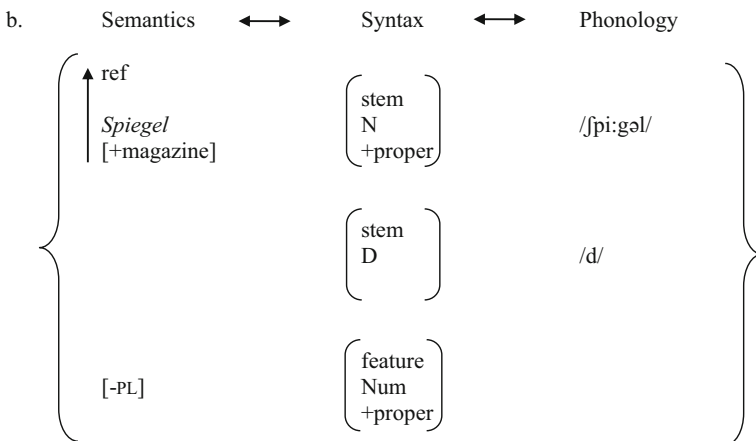
(27) a. *Dein*   *Telefonladen*   (German)
         Your   Phone.store
         'Your Phone Store'

	Semantics	⟷	Syntax	⟷	Phonology
b.	ref *Telefonladen* [+store]		stem N +proper		/teleˈfoːnlaːdən/
c.	+POSS 2nd PERS -PL		stem D +proper		/daɪn/
d.	[-PL]		feature Num +proper		

e. Dein Telefonladen: {↑TELEFONLADEN[+p], DEIN[+p]; [-PL][+p]}
   Your Phone.store

---

[13] It is possible that the compound *Telefonladen* 'Phone Store' could be broken down into smaller pieces and that the designation 'stem' in (27b,c) could be replaced by 'root'. Assuming the proposal in Marantz (1997), labels such as N could then be derived in syntax allowing us to remove them from the Lexical Entry (but see also Baker 2008, 38 fn. 11). For simplicity, we follow Köhnlein's (2015) specifications of PN here. One advantage is that the compound is stored as a whole, allowing it to develop a meaning over time that is different from its (combined) non-proprial parts. Cases like this are discussed in Nübling et al. (2015, 49–60); for instance, the semantically intransparent, old-fashioned German name *Hildebrand* consists of the Old High German nouns *hiltia* 'battle' and *brant* 'sword'. More generally, it has been shown that if listed vocabulary elements are in frequent use over a long period of time, they may undergo lexicalization including changes in phonology, morpho-syntax, and semantics (see Lipka 1994; Hohenhaus 2005). This leads us to expect that phrasal PN will show such changes in their later lives.

The other two types of PN are similar, the main difference being the analysis of the definite article.

Recall that the definite article in *Der SPIEGEL* 'The Mirror' is in the original context (i.e., it is part of the official name) but that it can be left out or be exchanged by another determiner element. Therefore, Roehrs (2020) takes the article to be in the stored set, but it is an expletive as already stated above. As such, the article is not part of the semantic but only of the syntactic and phonological components of the Lexical Entry. Since the article is not obligatorily present in all contexts, he assumes that it does not involve the feature [+proper]. For concreteness, we follow Leu (2015), Roehrs (2013), and references cited therein in taking the article to be a bipartite form consisting of a stem (*d-*) and an inflection (*-er*), the latter being determined during the derivation:

(28) a. Der   Spiegel: {↑SPIEGEL$_{[+p]}$, D-; [-PL]$_{[+p]}$}
          The   *Mirror*

b.   Semantics   ⟷   Syntax   ⟷   Phonology

$$
\left\{
\begin{array}{ccc}
\begin{array}{l}
\text{ref} \\
\textit{Spiegel} \\
\text{[+magazine]}
\end{array}
&
\left(\begin{array}{l}\text{stem}\\\text{N}\\\text{+proper}\end{array}\right)
&
\text{/ʃpi:gəl/} \\
\\
&
\left(\begin{array}{l}\text{stem}\\\text{D}\end{array}\right)
&
\text{/d/} \\
\\
\text{[-PL]}
&
\left(\begin{array}{l}\text{feature}\\\text{Num}\\\text{+proper}\end{array}\right)
&
\end{array}
\right\}
$$

The third case, phrasal PN with no article in the original context, is similar to the two previous types. However, here the definite article is absent in all components of the Lexical Entry:

(29) a. Neue   Post: {↑POST$_{[+p]}$, NEU$_{[+p]}$; [-PL]$_{[+p]}$}
          New   *Mail*

b.   Semantics   ⟷   Syntax   ⟷   Phonology
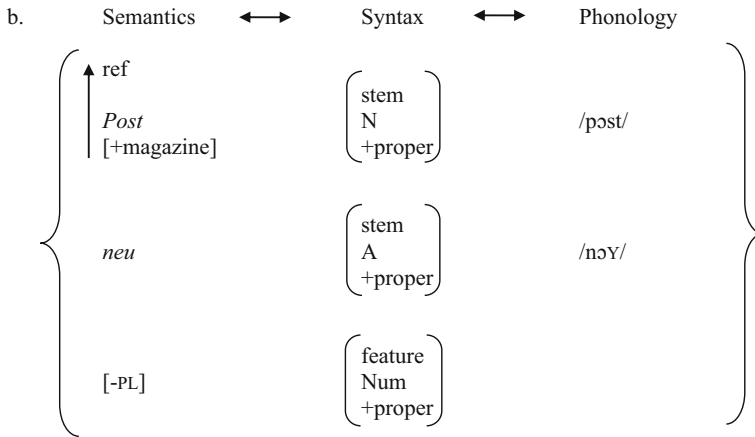
To be clear, Lexical Entries involve fixed sets of multi-component vocabulary elements. The main difference between the entries above is the presence of the determiner element in all three components (possessive), its presence in the syntax and phonology only (definite article is present in the original context), and its absence in all three components (definite article is not present in the original context).

3.2 Derivation of Phrasal PN

After PN are acquired and stored in the lexicon, they can be used. Depending on the syntactic context they appear in, the derivation of the PN may slightly differ. While the derivation of PN with possessives is the same in all contexts, the analyses of PN with or without a definite article vary according to syntactic context. Specifically, although the derivation is based on the vocabulary elements inside the Lexical Entry, certain minor adjustments are made in specific syntactic contexts.

Roehrs (2020) sides with Allerton (1987) in that phrasal PN involve regular nominal strings on the surface only. As discussed in Subsect. 2.5, these strings do not undergo certain syntactic operations (e.g., DP-internal reordering). In other words, phrasal PN are frozen to certain syntactic processes. Roehrs proposes that PN involve derivations like those of ordinary DPs, but with a few additional contraints. Following Chomsky's (1995) discussion of non-proprial constructions, he assumes that the elements to be used during the derivation are taken from the lexicon and collected in the Numeration. These elements are then Selected from the Numeration and undergo Merge one element at a time. The derivation proceeds bottom-up. Nouns project NPs, and number features project NumPs. Following Cinque (2005, 2010), adjectives are Merged in Spec,AgrP, and determiners surface in the DP-level (for detailed background discussion of the derivation of DPs, see Julien 2005; Alexiadou et al. 2007, and many others).
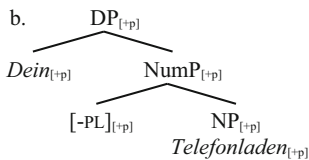
Phrasal PN are special in two ways: first, the Lexical Entry of the PN serves as (part of) the Numeration; that is, the individual vocabulary elements of the Lexical Entry become (part of) the Numeration. Second, recall that with the exception of the

definite article, every item in the Lexical Entry is marked by the feature [+proper]. Roehrs proposes that during the derivation this feature spreads to the hosting phrase of this item. Specifically, this feature projects from the head to its phrase (30a). Norris (2014, 136f) points out that this type of percolation immediately follows from Bare Phrase Structure (Chomsky 1995). Furthermore, with adjectives located in Spec,AgrP, this feature spreads by Spec-head agreement from the specifier to the head of the hosting phrase (30b) (for the discussion of Spec-head agreement, see Chomsky 1986; Gallmann 1996; Alexiadou 2005; Koopman 2006; Baker 2008).[14] Note that (30a) will yield the fact that the entire phrase containing the specifier will also have that feature:

(30) a. $X_{[+p]}$ -> $XP_{[+p]}$
     b. $Spec,YP_{[+p]}$ -> $Y_{[+p]}$ (-> $YP_{[+p]}$)

As a consequence, all phrases whose specifier or head have the feature [+proper] will have that feature on the hosting maximal projection as well. This will become relevant below.[15] Other than that, the derivation proceeds in the way briefly outlined above and illustrated in more detail below. Consider the tree diagram for (31a) in (31b):

(31) a. Dein Telefonladen: {↑TELEFONLADEN$_{[+p]}$, DEIN$_{[+p]}$; [-PL]$_{[+p]}$}
        Your Phone.store

b.

```
              DP[+p]
        ┌───────┴────────┐
    Dein[+p]          NumP[+p]
               ┌──────────┴──────────┐
          [-PL][+p]              NP[+p]
                              Telefonladen[+p]
```

Given a regular structure, we assume that inflections on nouns, adjectives, and determiners are determined during the derivation in the same way as with ordinary

---

[14] We diverge here from Norris (2014), who does not allow percolation from a specifier. Norris assumes that if a head does not have a feature, this feature can percolate from the complement of that head. If we were to assume that here, it would mean that the DP-level could get the feature [+proper] from the complement, AgrP or NP, when there is no element marked by [+proper] in the DP-level. This in turn raises problems for our account of German, where the DP-level is not always frozen. One way to bring the current system more in line with Norris' (2014) proposal (and to make it simpler) would be to assume that adjectives are analyzed as heads in the projection line of nouns (e.g., Bošković 2005). In that case, only the first percolation mechanism would be needed. However, the analysis of adjectives as heads raises other issues (for an overview of the different analyses of adjetives and their consequences, see Roehrs to appear). Be that as it may, percolation from the complement to its selecting head would have to be excluded either way for our account to go through.

[15] Note that the percolation of the feature [+proper] is different from regular concord agreement in phi-features and case (for accounts of concord agreement that do not involve percolation, see, for instance, Baker 2008; Schoorlemmer 2009 (Agree); Carnie 2021, 293 (selection)).

DPs. We take it that the minor differences such as the possible absence of the genitive inflection on the proprial head noun (Subsect. 2.5) are due to the presence of the feature [+proper] on that noun.

The derivations of PN with or without a definite article are slightly different. Starting with PN where the article is part of the original context, we proposed in the previous subsection that the article is part of the Lexical Entry but not the proprial core; that is, it is not marked by [+proper]. This is the case with (32a) derived as in (32b):[16]

(32) a. Der   Spiegel: {↑SPIEGEL$_{[+p]}$, D-; [-PL]$_{[+p]}$}
       The   Mirror

b.

DP

D-er   NumP$_{[+p]}$

[-PL]$_{[+p]}$ NP$_{[+p]}$
SPIEGEL$_{[+p]}$
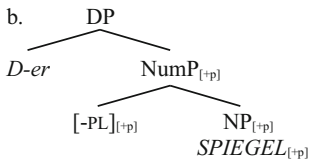
In the context of vocatives, compound-like elements, demonstratives, and possessives, the article must be deleted (in lists, it may be deleted). Note again that this is an expletive element, and its deletion will not lead to a loss of meaning.[17]

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[16] Note that the DP-level is not marked by [+proper]; that is, it is not frozen in these instances (see below). However, movement of the determiner out of the DP is not possible in general and is thus out for independent reasons.
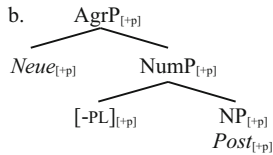
[17] There is an alternative possibility here, which involves a trade-off. Assuming as we have that the definite article is part of the Lexical Entry, it must be deleted in certain contexts as stated in the text. Alternatively, one could follow the suggestion of a reviewer and assume that definite articles are not part of the Lexical Entries in German, and consequently, they would not have to be deleted. However, this would disregard the way phrasal PN appear in their original contexts. Since the original context is significant in Norwegian, we will leave the text discussion unchanged. Furthermore, the deletion of the article seems to occur more generally.

Specifically, Payne and Huddleston (2002, 517) point out for English that plural proper names usually have an article (in their terminology, they are "weak" proper names). However, they lose their definite article in certain contexts like in German, for instance, in compound-type constructions such as *two (*the) United States warships*. As pointed out in Footnote 2, articles also do not surface with non-proprial phrasal compounds, and we assumed there that their absence in proprial phrasal compounds shares the same explanation. Furthermore, taking demonstratives and possessives to be in Spec,DP, the absence of the article with these elements may follow from the Doubly-filled DP filter (cf. Roehrs 2020, 32). Finally, it is less clear why the article is also absent with vocatives. Note though that this is also the case with inherent PN, and we take it that whatever explains those cases, also applies to phrasal PN.

Given this, the absence of the expletive article seems to be due to independent reasons. As such, we believe that the deletion (or suppression) of the definite article in cases like *Der Spiegel* is more straightforward than the alternative—the addition of the article to *Spiegel* yielding the official name. Indeed, if articles could be freely added to yield the official names, then this option would have to rule out official names like **Der stern* '(the) Star'. This in turn seems to require some lexical marking, present with *Spiegel* but not *stern*, and makes this option similar to our different Lexical Entries in the main text.

Third, for phrasal PN where the definite article is not in the orginal context, we followed Roehrs in that the article is not part of the Lexical Entry at all. This involves cases like (33a), which are derived as in (33b):

(33) a. Neue   Post: $\{\uparrow\text{POST}_{[+p]},\ \text{NEU}_{[+p]};\ [\text{-PL}]_{[+p]}\}$
          New   Mail

b.

$$
\begin{array}{c}
\text{AgrP}_{[+p]} \\
\diagup\qquad\diagdown \\
Neue_{[+p]}\qquad \text{NumP}_{[+p]} \\
\diagup\qquad\diagdown \\
[\text{-PL}]_{[+p]}\qquad \text{NP}_{[+p]} \\
Post_{[+p]}
\end{array}
$$

Unlike above, here a definite article (or other determiners) can be added in certain syntactic contexts. We assume that the relevant determiner is added to the Numeration before the derivation. Specifically, a definite article can be added for list contexts, and a definite article, a demonstrative, or possessive must be added for argument contexts (more on Numerations in later sections). For the latter scenario, we follow Longobardi (1994, 620), who argues that the DP-level is projected for independent reasons when a nominal occurs in argument position (also Stowell 1989). The presence of one of these determiner elements will bring about the DP-level. Note that an added article will be of a definite form because the PN as a whole is referential and thus definite. Consider some consequences of the proposal.

As Longobardi (1994) has demonstrated for Italian, (inherent) PN can undergo certain syntactic operations (e.g., proprial nouns may undergo movement to a location higher than common nouns). Roehrs (2020) proposed that inherent PN are marked by [+proper] as well. This relates inherent PN to phrasal PN directly. This in turn means that the syntactic behavior of phrasal PN can also be taken to be sensitive to the presence of the feature [+proper]. Given that all elements in the syntactic tree are marked by this feature as discussed above, all participate in these syntactic operations equally; that is, no individual element can be singled out. As no element can be affected individually, this yields a type of "freezing" of phrasal PN to certain syntactic operations (Subsect. 2.5). Furthermore, if the feature [+proper] is indeed responsible for this syntactic effect, then it must be present early in the derivation. If it is a marking on a vocabulary element, then

vocabulary elements must be inserted early in the derivation (i.e., during syntax), at least with phrasal PN.[18]

We have seen above that the definite article can, and sometimes must, be left out. Note that in either case, the PN can still be referential. As discussed in Subsect. 2.5, it is possible for the hearer to pick out the relevant entity in the world. To repeat from above, if the presence or absence of the definite article correlates with the presence or absence of the DP-level, then the referentiality of phrasal PN does not originate in the DP-level (pace Longobardi 1994). If so, referentiality must come from somewhere else, presumably an element in the lower part of the structure. Roehrs follows Köhnlein (2015) in that it comes from the referential pointer on the noun. This concludes the review of a previous proposal. Next, we turn to Norwegian with the intention of refining the proposal.

4 Phrasal PN in Norwegian

To identify some differences between German and Norwegian, we start this section with some basic data of phrasal PN in Norwegian. In the second subsection, we illustrate that unlike in German, phrasal PN in Norwegian are always frozen at the DP-layer. In Subsect. 4.3, we provide our Lexical Entries and the derivations. In the fourth subsection, we show that phrasal PN in Norwegian exhibit characteristics of recursivity that German does not show as clearly. Finally, we propose that the nominal strings of phrasal PN can be delineated in three different domains that vary cross-linguistically in their structural sizes.

Before we present the data, let us provide a brief statement about the spelling conventions of PN in Norwegian. It is generally recommended to spell only the first word of phrasal PNs with an initial capital letter. However, as our examples will illustrate, there is much variation on this point.

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[18] Note again that we have taken a lexicalist view in this paper. Consequently, we labeled all complex vocabulary entries as Lexical Entries here. This was intended to highlight the fact that this is different from assumptions in Distributed Morphology (e.g., Halle and Marantz 1993; Harley and Noyer 1999, 3–4), where traditional vocabulary entries are distributed through three components: morpho-syntactic features, (phonological) Vocabulary Items, and (semantic) Encyclopedic Entries (note though that the inflections on our PN are also inserted late). Given the special, hybrid properties of phrasal PN and the fact that these elements are semantically not entirely compositional (e.g., syntactically indefinite nominals have a definite interpretation; PN may have unexpected category labels), it is currently not entirely clear to us how to provide detailed reformulations of our Lexical Entries in the framework of Distributed Morphology.

A reviewer points out that Gallego's (2016) (non-standard) structure-tampering process of incorporation/reprojection might be extended from the word-level to the phrase-level to account for the special morpho-syntactic properties of phrasal PN. Furthermore, a reformulation of our Lexical Entries might also include a simplification of the current tripartite entries such that the apparent overlap of the semantic referential pointer and the syntactic feature [+proper] is addressed, a point raised by another reviewer. Note though that if we only employ the referential pointer (or pointers), we have no straightforward explanation of why phrasal PN are frozen in certain aspects and why their morpho-syntax may differ in certain ways from that of common DPs (e.g., the distribution of the genitive suffix). Conversely, if we only utilize the feature [+proper], then the mopho-syntactic facts follow, but it is less clear in what sense this feature can do double duty as a referential, pointing index. We will leave the exploration of these interesting ideas for future research.

4.1 Basic Data

Like German, Norwegian exhibits both syntactically definite and indefinite DP patterns, the difference being that there is more variation with Norwegian PN, just like with regular DPs (for extensive discussion of the latter, see, for instance, Vangsnes 1999; Julien 2005; Schoorlemmer 2012). Starting with the cases involving syntactic definiteness, there are the well-known DP strings that involve a free-standing and a suffixal determiner (34a). In addition, there is also a distributional pattern identical, on the surface, to generic DPs where the suffixal article is missing (34b):[19]

(34) a. Den Rød-e   Frakk-en   [store]   (Nw)
        The   Red-WK   Overcoat-DEF
        'The Red Overcoat'
     b. Den Gaml-e   Major   [restaurant]
        The   Old-WK   Major
        'The Old Major'

Furthermore, there are phrasal PN that have the patterns involving definite adjectives, sometimes called adjectival determiners. In these cases, the free-standing definite article is missing, but a suffixal determiner may or may not be present. Compare (35a,b):

(35) a. Stor-e   Skarv-en   [company] (Nw)
        Big-WK   Cormorant-DEF
        'Big Cormorant'
     b. Norsk-e   Skog   [company]
        Norwegian-WK Forest
        'Norwegian Forest'

Turning to the syntactically indefinite patterns, there is the familiar string involving an indefinite article (36a). In addition, there are phrasal PN that are similar to what have been referred to in the literature on Norwegian as type-denoting DPs (Borthen 2003). The latter lack an indefinite article (36b) (note that the adjective *liten* in (36a) is a portmanteau form and that Ø in (36b) indicates an assumed null ending):

(36) a. En   Liten   Butikk [store]   (Nw)
        A   Small.ST Shop
        'A Small Shop'

---

[19] Demonstratives do not seem to occur as part of certain PN (e.g., company names), but they are possible in book titles (e.g., *Denne Kjærligheten* 'This Love'). As observed already elsewhere (Payne and Huddleston 2002, 516–517; Zifonun 2009, 521), titles and names for works of art are different from other PNs.

b. Gul-Ø   Sirkel   [company]
   Yellow-ST Circle
   'Yellow Circle'

Again, all these strings involve well-known patterns. If this is so, then one might expect phrasal PN in Norwegian to contain two adjectives where either both of them exhibit a weak inflection, or both of them show a strong ending. This is indeed the case

(37) a. Stor-e   norsk-e   leksikon   [reference book] (Nw)
          Big-WK   Norwegian-WK Encyclopedia
          'Big Norwegian Encyclopedia'
      b. Fin-Ø   Gammel-Ø   Årgang   [company]
          Fine-ST   Old-ST   Vintage
          'Fine Old Vintage'

These are the patterns found in the original contexts in Norwegian. Note that, despite the difference in surface strings, all phrasal PN are referential in the same way; that is, their semantics is independent of their surface shape. With this in mind, we turn to the properties that set phrasal PN in Norwegian apart from those in German.

4.2 Frozen DP-level

In this subsection, we illustrate that phrasal PN in Norwegian can be preceded by demonstratives or possessives (without suppressing the determiner present in the original context). Furthermore, proprial articles in Norwegian are also retained in the context of compound-type structures, vocatives, and list contexts. Finally, Norwegian PN can occur in argument positions without a determiner present. These points are summarized and contrasted with German in Table 2. We will conclude that unlike in German, in Norwegian all phrasal PN are frozen at the DP-level.

Unlike in German, a PN with a free-standing article in Norwegian as in (34a) can be extended by a demonstrative (38a). Similarly, a PN such as in (34b) can take a possessive pronominal on its left (39a). In fact, leaving out the free-standing article of these PN results in degradedness. Consider the two (b)-examples below:

(38) a. Wow,   denne Den   Rød-e   Frakk-en   er   en   flott butikk! (Norwegian)
          wow   this   The   Red-WK   Overcoat-DEF is   a   great store
          'Wow, this Red Overcoat is a great store!'
      b. ?? Wow, denne Rød-e   Frakk-en   er   en   flott butikk!
          wow   this   Red-WK   Overcoat-DEF   is   a   great store
          'Wow, this Red Overcoat is a great store!'

(39) a. ? Har   dere besøkt vår Den   Gaml-e Major? (Norwegian)
         have you   visited our The   Old-WK Major
         'Have you visited our Old Major?'
     b. ?? Har dere besøkt vår Gaml-e Major?
          have you   visited our Old-WK Major
          'Have you visited our Old Major?'

Similarly, adding a demonstrative to (35a) works fine (40a), and the same holds for a possessive pronominal, with (35b) yielding (40b):[20]

(40) a. Så,   dette Stor-e Skarv-en   er   et   nytt selskap.   (Norwegian)
         so   this Big-WK Cormorant-DEF is   a   new company
         'So, this Big Cormorant is a new company.'
     b. Vet   du   at   mitt Norsk-e   Skog har hjulpet meg   mye!
        know you   that   my   Norwegian-WK   Forest has helped me   much
        'Do you know that my Norwegian Forest has helped me a lot?'

---

[20] Note that these PNs are neuter despite the fact that the head nouns are of common gender (as is clear from the suffixal determiner). In fact, considering the different inflections on the predicative adjectives in (i), the gender of the PN as a whole seems to vary with the semantic category; compare (i.a), which involves a name for a company, to (i.b), which is a name for a restaurant:

(i) a. Stor-e Skarv-en   er ny-tt.   [company]   (Nw)
       Big-WK Cormorant(COM)-DEF is new-NEUT.ST
       'Big Cormorant is new.'
    b. Stor-e Skarv-en   er ny-Ø.   [restaurant]
       Big-WK Cormorant(COM)-DEF is new-COM.ST
       'Big Cormorant is new.'

This mismatch in gender between the head noun and the PN as a whole is unexpected.

In the main text, different semantic categories of PN were captured by positing category labels as part of the Lexical Entries. While we have no definite solution to the issue of gender, there are two well-known options: there could be a null noun of the relevant gender, either before or after the PN (ii.a); or, alternatively, gender could be assigned to the PN by a rule such that the category label inside the Lexical Entry determines the gender of the Lexical Entry as a whole (ii.b); note that the assignment rule in (ii.c) holds more generally and is presumably not part of a specific Lexical Entry:

(ii) a. dette (e_N) Stor-e Skarv-en (e_N)
        this.NEUT   Big-WK Cormorant(COM)-DEF
     b. {PN; [category label]}$_{[GENDER]}$
     c. [company] $\rightarrow$ [NEUT]

As the various semantic categories have different overt manifestations, it seems clear that the rule would have to apply in the overt part of the derivation. This second option is sometimes referred to as referential gender (Fahlbusch and Nübling 2014).

Again, unlike in German, in Norwegian the article can be present in compound-type constructions (41a) and in vocatives (41b):[21]

(41) a. ? den ung-e   "Den Rød-e   Frakk-en"-ekspeditør-en   (Norwegian)
           the *young-WK*   *The* *Red-WK*   *Overcoat-DEF-sales.clerk-DEF*
           'the   young   Red   Overcoat salesclerk'
       b. Hei, Den Rød-e   Frakk-en, hvorfor har du   blitt så dyr?
           hey, *The* *Red-WK* *Overcoat-DEF* *why*   *have* *you* *become* *so* *expensive*
           'Hey, Red Overcoat, why have you become so expensive?'

Similarly, the determiner must also be present in list contexts:

(42) a. Den Rød-e   Frakk-en   (Norwegian)
           The *Red-WK* *Overcoat-DEF*
           'the Red Overcoat'
       b. Den Gaml-e Major
           The *Old-WK* *Major*
           'The Old Major'

Finally, note that all these Norwegian PN can, as they are, occur in argument position. Illustrating with the type in (36b), where no determiner of any kind is present, the phrasal PN can be the subject or object of a sentence (43a,b). The same goes for the complement position of a preposition (43c):

(43) a. Ny-tt   Image   er   min   favorittbutikk.   [company]   (Nw)
           New-ST *Image* *is*   *my*   *favorite.shop*
           'New Image is my favorite shop.'
       b. Du   finner   Ny-tt   Image i   Storgat-a.
           you   *find*   *New-ST* *Image* *in*   *Big.street-DEF*
           'You'll find New Image on Main Street.'
       c. På   Ny-tt   Image får   du   hjelp   med   stil-en.
           at   *New-ST* *Image* *get*   *you*   *help*   *with*   *style-DEF*
           'At New Image you get help with your style.'

Again, this is different in German. Recall that if a definite article is not present in the original context in the latter language, it must be added when the PN occurs in argument position (Subsect. 2.4). With Longobardi (1994), we assume again that

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[21] An example less complex than (41a) is as follows:

(i)   (den ung-e)   "Aftenpost-en"-journalist-en
       the *young-WK*   *Evening.post-DEF-journalist-DEF*
       'the young   Evening Post journalist'

Notice that there is some variation here in that the suffixal article on the PN can also be left out: *"Aftenpost"-journalist.*

Table 2 Presence of determiner elements in phrasal PN in German and Norwegian

	Type of PN (orig. cont.)	Frozen level	Determiner in				Possible presence of	
			comp.	voc.	lists	arg. pos.	dem	poss
Germ.	Noun	NP[a]	–	–	–/+	+	+	+
	Art. Noun	NP[a]	–	–	–/+	(+)	[+]	[+]
	Poss. Noun	DP	(+)	(+)	(+)	(+)	–	(+)
Norw.	various	DP	{+}	{+}	{+}	{+}	+	+

[a] If an adjective is present, the frozen level is AgrP

syntactic arguments are DPs. We propose that all phrasal PN in Norwegian involve DPs including the surface strings in (35a,b) and (36b), where free-standing determiners are missing.[22]

To sum up the discussion of Norwegian thus far, demonstrative and possessive pronominals can be added to the left of PN independent of the presence of determiner elements in those PN. Furthermore, PN with determiner elements can occur in compound-type constructions, in vocatives, and lists. Conversely, no (additional) determiner elements are required when PN are in argument position. For convenience, these points in Norwegian are contrasted schematically with German in Table 2 ((+) = already present in the original context; [+] = replacing article from original context; {+} = determiner present if in original context).

Most importantly, unlike in Norwegian, PN in German may leave out an article in non-argument positions (e.g., compounds, vocatives, lists). Conversely, unlike in German, PN in Norwegian may occur without an article in argument positions. We conclude that given the invariable shape of the PN in Norwegian, the latter are frozen at the DP-level. Next, we consider the stored sets of vocabulary elements and the derivations of phrasal PN in Norwegian.

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[22] Norwegian phrasal PNs appear in the original form even in naming constructions, as illustrated in (i):

(i) De   kalte   butikk-en Den Rød-e   Frakk-en.
     they called   store-DEF   The Red-WK   Overcoat-DEF
     'They called the store The Red Overcoat.'

Matushansky (2008) argues that these constructions involve predicative contexts (but see also the special status of names for inanimate individuals in Russian on page 585 of her paper). Muñoz (2019, 4) takes vocatives to manifest predicative contexts as well, and as we have seen above, PN in Norwegian appear in the frozen form there as well. Both authors observe that articles cannot occur in predicative contexts, be it (regular) definite articles as in Matushansky or (special) proprial articles as in Muñoz. If this is so, then phrasal PN in Norwegian would presumably involve an (additional) null article when they appear in argument position given the presence of an overt article in (i). As far as we know, there is no independent evidence for such an article there. Furthermore, if the PN in Norwegian are indeed phrasal, then it would not be clear how such a null article would be licensed in this language but not in German (see again the tentative remarks in Footnote 7); for phrasal PN as predicates, see also Footnote 26.

4.3 Lexical Entries and Derivations

In this subsection, we extend the discussion from German to Norwegian. Most importantly, Lexical Entries are formulated in a similar way, the main difference being the obligatory presence of a definiteness feature marked by [+proper] in Norwegian. Furthermore, derivations are the same, with the obligatory definiteness feature in Norwegian always leading to the projection of the DP-level. Indeed, the marking [+proper] on the definiteness feature results in the freezing of the entire DP to certain syntactic operations.

Starting with the cases involving syntactic definiteness, there are many accounts that seek to explain the distribution of the free-standing and the suffixal determiners as well as the weak endings on adjectives in Norwegian. This is not the place to go into a detailed discussion (but see, e.g., Taraldsen 1990; Embick and Noyer 2001; Julien 2005; Anderssen 2006, 2012, and many others). In order to explain the distribution of free-standing and suffixal determiners as well as weak adjective endings, a number of analyses claim that these elements are definiteness-sensitive and are due to the presence of a definiteness feature or several definiteness features (e.g., Julien 2005; Schoorlemmer 2012; Roehrs 2019). As is well known, German does not have suffixal determiners at all. In addition, the endings on adjectives are not regulated by definiteness either (Harbert 2007, 134–35; Roehrs and Julien 2014). As regards the latter point, consider the following nominal strings, which have the same definite interpretation despite the fact that the article is present in the (a)-examples but absent in the (b)-examples. Importantly, while the adjectives in Norwegian are invariably weak here, they vary in German depending on the presence of the article:

(44) a. på   den   best-e   måte-n   (Norwegian)
          in   the   best-WK way-DEF
          'in the best way'
      b. på   best-e   måte
          in   best-WK   way
          'in the best way'

(45) a. das   folgend-e   Beispiel (German)
          the   following-WK   example
          'the following example'
      b. folgend-es Beispiel
          following-ST example
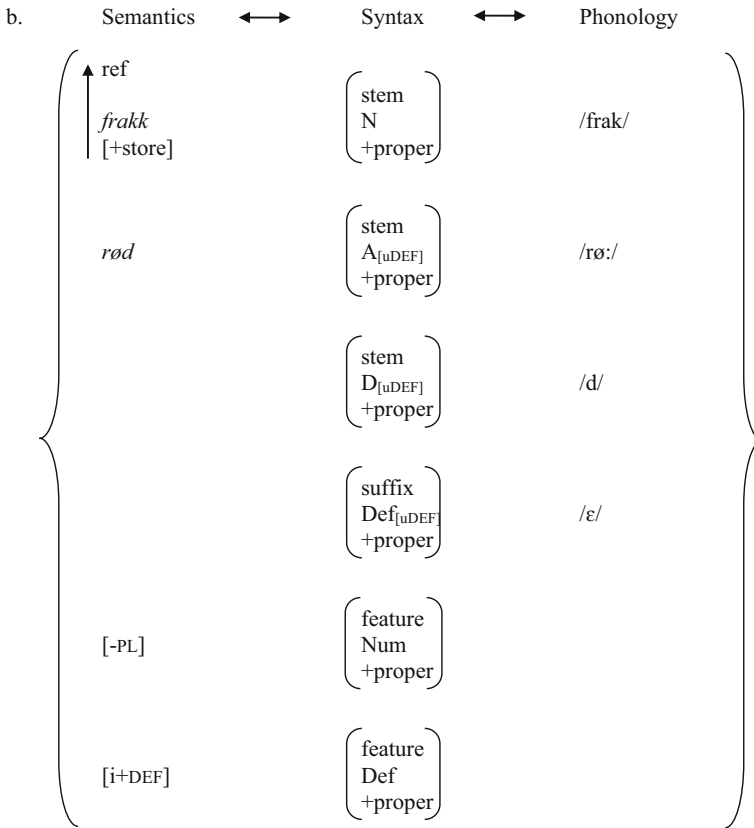   'the following example'

Thus, unlike in German, the shape of the DP in Norwegian is closely tied to definiteness.

Above, we observed that phrasal PN in Norwegian have different surface patterns: some have determiners, some do not. This means that the frozen DP-level in Norwegian cannot be a function of the presence or absence of determiners. Rather, we propose that what all phrasal PN in Norwegian have in common is the presence of an abstract feature. Given the relevance of definiteness for regular DPs, we take this abstract feature to be a definiteness feature (relating phrasal PN directly to regular DPs). Specifically, we propose for Norwegian that the Lexical Entries for phrasal PN involve a definiteness feature [DEF] marked by [+proper]. Given the syntactically definite and indefinite strings, we assume that this syntactic feature may have a positive or a negative specification.

One may wonder now why the definiteness feature in Norwegian *must* be present. Proceeding more tentatively, we pointed out above that, despite the same (referential) semantics, the shape of Norwegian phrasal PN is different. To account for the surface differences, it seems clear that all the relevant vocabulary elements including articles must be present in the Lexical Entries. Notice again that all phrasal PN under discussion here exhibit an overt reflex of (in-)definiteness, articles of various kinds and strong or weak adjectives. To make the discussion concrete, we suggest that all these elements involve an uninterpretable feature for (in-) definiteness. Now, assuming that the aforementioned definiteness feature [±DEF] involves the interpretable counterpart, its presence in the Lexical Entry and thus in the derivation will allow the uninterpretable feature of the vocabulary elements to be checked resulting in a good derivation.

To sum up, keeping the Lexical Entries as similar to German as possible, there is one substantial difference between the two languages—the presence of the definiteness feature in Norwegian (46a) repeating the example from (34a). Like in German, we take the free-standing article to involve the stem *d-*; the suffixal article is given here as *-e-* for concreteness. Note that all the vocabulary elements are marked by [+proper]; that is, they are all part of the proprial core. The Lexical Entry in (46a) can be fleshed out further as in (46b) (u stands for uninterpretable, i indicates interpretable; for Def, see below):

(46)   a. Den   Rød-e   Frakk-en:
         The   *Red-WK*   *Overcoat-DEF*
         {↑FRAKK$_{[+P]}$, RØD$_{[+P]}$, D-$_{[+P]}$, -E-$_{[+P]}$; [-PL]$_{[+P]}$, [+DEF]$_{[+P]}$}

b.   Semantics   ⟷   Syntax   ⟷   Phonology

$$
\left(
\begin{array}{lll}
\begin{array}{l}\uparrow\text{ref}\\ frakk\\ \text{[+store]}\end{array} &
\left(\begin{array}{l}\text{stem}\\ \text{N}\\ \text{+proper}\end{array}\right) &
\text{/frak/}\\[2em]
r\o d &
\left(\begin{array}{l}\text{stem}\\ \text{A}_{[uDEF]}\\ \text{+proper}\end{array}\right) &
\text{/rø:/}\\[2em]
 &
\left(\begin{array}{l}\text{stem}\\ \text{D}_{[uDEF]}\\ \text{+proper}\end{array}\right) &
\text{/d/}\\[2em]
 &
\left(\begin{array}{l}\text{suffix}\\ \text{Def}_{[uDEF]}\\ \text{+proper}\end{array}\right) &
\text{/ɛ/}\\[2em]
\text{[-PL]} &
\left(\begin{array}{l}\text{feature}\\ \text{Num}\\ \text{+proper}\end{array}\right) & \\[2em]
\text{[i+DEF]} &
\left(\begin{array}{l}\text{feature}\\ \text{Def}\\ \text{+proper}\end{array}\right) &
\end{array}
\right)
$$

The Lexical Entry for (34b) is given in shorthand in (47a). The other definite instances are similar: (35a) is like (46a) above, and (35b) is like (47a) below, but in each case the free-standing article is not in the stored set. As for the syntactically indefinite cases (36a,b), we assume a definiteness feature with a negative specification (47b,c):

(47) a. Den   Gaml-e   Major:
          The   *Old-WK*   *Major*
          {↑MAJOR[+P], GAMMEL[+P], D-[+P]; [-PL][+P], [+DEF][+P]}
      b. En   Liten   Butikk:
          A   *Small.ST*   *Shop*
          {↑BUTIKK[+P], LITEN[+P], E-[+P]; [-PL][+P], [-DEF][+P]}
      c. Gul-Ø   Sirkel:
          Yellow-ST *Circle*
          {↑SIRKEL[+P], GUL[+P]; [-PL][+P], [-DEF][+P]}

As in German, we claim that the pointer brings about referentiality. (Proprial) referentiality in turn entails semantic definiteness. We assume that the presence of this pointer "overwrites" the negatively specified (syntactic) feature for definiteness in cases like (47b,c). Now, making the standard assumption that the definiteness feature surfaces in the DP-level (Lyons 1999), we can point out that the presence of this feature entails the presence of the DP-level. The feature [+proper] on [DEF] in the DP-level yields the fact that the DP-level is frozen in Norwegian. With all parts of the tree marked by [+proper], no element can be singled out for certain syntactic operations.

Consider the first steps in the derivation of (34a). Following Taraldsen (1990), Vangsnes (1999), Anderssen (2006, 2012), Julien (2005), and others, we assume that there is a phrase between AgrP and NumP where the definiteness feature [DEF] originates, call it DefP. With Roehrs (2019), we assume that this feature moves to the DP-level (also Heck et al. 2008, 229; Schoorlemmer 2009):

(48) a. Den   Rød-e   Frakk-en:
        The   *Red-WK*   *Overcoat-DEF*
        {$\uparrow$FRAKK$_{[+P]}$, RØD$_{[+P]}$, D-$_{[+P]}$, -E-$_{[+P]}$; [-PL]$_{[+P]}$, [+DEF]$_{[+P]}$}

   b.   DP$_{[+p]}$
          _____|_____
     [+DEF]$_{[+p]i}$ AgrP$_{[+p]}$
                    _____|_____
                Rød$_{[+p]}$ Agr'$_{[+p]}$
                           _____|_____
                   [+DEF]$_{[+p]i}$ DefP$_{[+p]}$
                                  _____|_____
                          [+DEF]$_{[+p]i}$ NumP$_{[+p]}$
                                         _____|_____
                                 [-PL]$_{[+p]}$ NP$_{[+p]}$
                                                     Frakk$_{[+p]}$
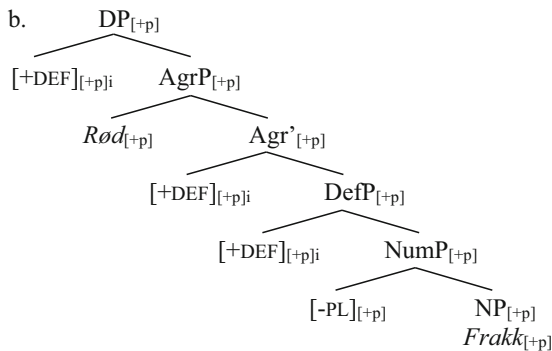
Before finalizing the derivation, note again that all the elements of the DP in Norwegian have the feature [+proper]. Consequently, the entire DP is frozen.

Continuing the derivation, the copy of [+DEF] in DP is spelled out by the free-standing determiner (*d*-), and the copy in DefP by the suffixal one (-*e*-). These elements were part of the Lexical Entry and thus formed part of the Numeration. The copy of [+DEF] in Agr will yield a weak adjective ending (for details, see, for instance, Roehrs 2019). The number feature will be spelled out by the relevant number morpheme (in this case, null). Furthermore, the head noun will raise to Num picking up the number morpheme and will then move on to Def supporting the suffixal article. Finally, regular agreement operations and (late) insertion will bring about the relevant inflections:

(49)

$$
\begin{array}{c}
\text{DP}_{[+p]} \\
D_{[+p]}\text{-}en \quad \text{AgrP}_{[+p]} \\
R\phi d_{[+p]}\text{-}e \quad \text{Agr'}_{[+p]} \\
\text{DefP}_{[+p]} \\
Frakk_{[+p]}\text{-}e_{[+p]}\text{-}n \quad \text{NumP}_{[+p]} \\
\text{NP}_{[+p]}
\end{array}
$$
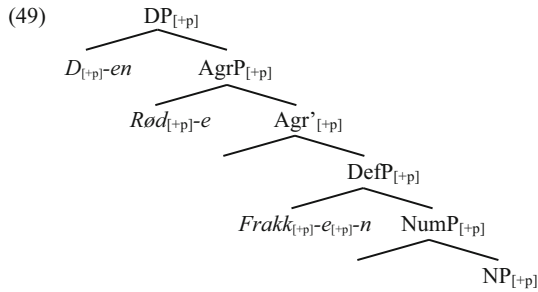
As is clear from (48b) and (49), there is some DP-internal movement. This means that the feature [+proper] does not block regular movement operations within the DP (but only displacements due to information structure: focus movement, *wh*-movement, etc.).[23]

More generally, these assumptions explain the difference between German and Norwegian as regards the DP-level. In German, possessives are marked by [+proper] yielding a frozen DP-level; PN with articles, however, are only DPs (necessarily) when they occur in argument position requiring the DP-level to be present for independent reasons; something similar holds for PN without articles. In contrast, Norwegian involves a definiteness feature that is marked by [+proper] thus freezing the DP-level in all cases. With this background in mind, we turn to the facts that are important for the proposal of more complex phrasal PN.

4.4 Recursivity

In Sect. 3, we followed Roehrs (2020) in that phrasal PN involve a regular syntactic derivation. Intriguingly, PN formation is recursive. Norwegian has an element, the adjective *nye* 'new' (and a few others), which can form another PN on the basis of an existing phrasal PN. While German also has this type of element, the properties to be discussed are not as clear there. Besides the differences related to the obligatoriness of the DP-layer, this adds another distinction between the two languages. Note that the following data all lack a determiner in front of the word for 'new'. In contrast, free-standing determiners are required with regular restrictive modification, a point we will return to at the end of this subsection.

Recall that Norwegian phrasal PN can have two weak adjectives while German cannot (when the definite determiner is absent in the latter language). Consider now (50). What is interesting to observe here is that the Norwegian example in (50a) is

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[23] This distinction between regular and information-structure movement was not made explicit in Roehrs (2020). On a more tentative note, movement related to information structure presumably does not have access to elements marked by [+proper], possibly because the feature [+proper] is, for some reason, incompatible with information-structure features. Currently, we have no interesting solution to offer. We will leave this for future research.

ambiguous in interpretation. On the one hand, *nye* can be part of a regular phrasal PN; in this case, the PN refers to a store that sells new red hats (and presumably some other items). On the other hand, *nye* can also form a new phrasal PN on the basis of an existing PN (*Røde Hatt*). In other words, in the first case, a name is given to a store that is established for the first time; in the second scenario, the original store has been remodeled and reopened, or it is possibly under new management in a different location.[24] We call the first reading of *nye* PRIMARY INTERPRETATION (marked below by the superscript [1]) and the second reading of *nye* SECONDARY INTERPRETATION (indicated below by the superscript [2]). As mentioned above, the German pattern is independently out (50b):

(50) a. Ny-e   Rød-e   Hatt   [store]   ($\sqrt{}$Nw^{1,2})
         New-WK   *Red-WK*   *Hat*
         'New Red Hat'
     b. * Neu-e   Ägyptisch-e Museum   (*Ge)
          New-WK   *Egyptian-WK* *Museum*
          'New Egyptian Museum'

We will see that the different readings correlate with some interesting, unexpected morpho-syntactic facts in Norwegian. Specifically, strings with a secondary interpretation allow the adjective *nye* (with a weak ending) to be followed by an adjective with a strong ending or by a possessive. This is different from German. To the extent that unexpected patterns are possible in the latter language at all, they are quite marked.

Continuing with the different inflectional options, both languages can have two strong adjectives. Here, the adjective for 'new' can only have the primary interpretation in Norwegian. In contrast, German allows both readings:

(51) a. Ny-Ø   Gul-Ø   Sirkel   [company] ($\sqrt{}$Nw^{1})
         New-ST   *Yellow-ST* *Circle*
         'New Yellow Circle'
     b. Neu-es   Ägyptisch-es Museum [museum] ($\sqrt{}$Ge^{1,2})
         New-ST   *Egyptian-ST* *Museum*
         'New Egyptian Museum'

Furthermore, the adjective for 'new' with a strong ending cannot be followed by an adjective with a weak ending in Norwegian. This combination seems to be marginally possible for some speakers in German:

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[24] Anderson (2003, 360) also discusses cases where a name can be used as a basis for another name (e.g., *Queensland* and *the University of Queensland*; cf. Payne and Huddleston 2002, 519; also Matushanksy 2008, 607). Unlike the cases discussed in the main text, the category of the referent here changes. Note though that all these cases yield different, unique names. In fact, the entities referred to by the new, derived PN and by its original, simple counterpart may co-exist in the current world. This is unlike instances such as *the Paris of the forties* or *the young Mozart* (see Matushansky 2008, 604–08 and references cited therein).

(52) a. * Ny-Ø   Grei-e   Kafeteria   (*Nw)
            New-ST Nice-WK   Cafeteria
            'New Nice Cafeteria'
     b.% Neu-es   Ägyptisch-e Museum   (%Ge)
            New-ST Egyptian-WK Museum
            'New Egyptian Museum'

Conversely, Norwegian *nye* can be followed by a strong adjective. In this case, *nye* only has a secondary interpretation. Note also that this surface string is usually ungrammatical in Norwegian, just as it is impossible in German including with PN:

(53) a. Ny-e   Grei-Ø   Kafeteria [cafeteria] ($\sqrt{}$Nw^2)
            New-WK   Nice-ST   Cafeteria
            'New Nice Cafeteria'
     b. * Neu-e   Ägyptisch-es Museum   (*Ge)
            New-WK Egyptian-ST   Museum
            'New Egyptian Museum'

Before we summarize these four inflectionally different patterns, let us point out that there is a related morpho-syntactic difference between Norwegian and German.

   While the weak adjective for 'new' can be followed by a possessive in Norwegian yielding a secondary interpretation, this is not possible in German. Again, note that this surface string is usually impossible, also in Norwegian:

(54) a. Ny-e   Elses   Blomster [store] ($\sqrt{}$Nw^2)
            New-WK   Else's   Flowers
            'New Else's Flowers'
     b. * Neu-e   Marias   Laden   [store] (*Ge)
            New-WK Mary's   Shop
            'New Mary's Shop'

If the adjective for 'new' has a strong ending in this context, the resultant nominal in Norwegian is out, but the one in German, while quite marked, is not completely impossible:

(55) a. * Ny-tt   Elses   Hjem   (*Nw)
            New-ST   *Else's   Home*
            'New Else's Home'
     b. ?*/?? Neu-er   Marias   Laden (*Ge)
            New-ST   *Mary's   Shop*
            'New Mary's Shop'

Finally, while the most frequent element in this regard appears to be the word for 'new', there seem to be a few other adjectives that combine with existing PN yielding newly formed PN:

(56) a. Alt-er   Grün-er   Weg   [street name in Alsfeld] (Ge)
          Old-ST   *Green-ST*   *Path*
          'Old Green Path'

      b. Groß-es   Lexikon   der   Astronomie [reference book]
          Big-ST   *Lexicon*   *the.GEN* *Astronomy*
          'Comprehensive Lexicon of Astronomy'

      c. Klein-es   Berlin-Lexikon   [reference book]
          Small-ST   *Berlin-Lexicon*
          'Little Berlin Lexicon'

Some Norwegian examples are provided below:

(57) a. Gaml-e   Oslo   [a borough in Oslo]   (Nw)
          Old-WK   *Oslo*
          'Old Oslo'

      b. Lill-e   Frøen   [a neighborhood in Oslo]
          little-WK   *Frøen*
          'Little Frøen'

Note that all these names refer to unique entities that are different from their simpler counterparts, which lack the first element. Thus, these elements are part of the referential component of the PN. More generally, recursivity involving the word for 'new' is not an isolated case. However, the elements that can induce recursivity seem to involve a small, restricted set. We continue the discussion with the word for 'new'.

To sum up thus far, there are some differences between Norwegian and German when the adjective for 'new' is followed by another adjective or by a possessive. First, of the four logical inflectional combinations, three are possible in Norwegian with varying interpretative options while German allows only two, one of them being marginally possible for some speakers. Both languages share only one surface string (when both adjectives have a strong ending). Second, when the adjective for 'new' has a weak ending, it can be followed by a possessive in Norwegian but not in German. This is summarized in Table 3.

More generally, there are then two unexpected surface strings in Norwegian: the weak adjective *nye* can be followed (i) by a strong adjective or (ii) by a possessive. These morpho-syntactic patterns correlate with a (necessarily) secondary reading of *nye*. We take the latter two morpho-syntactic differences to mean that Norwegian *nye* combines with a lower DP. This fits well with Norwegian phrasal PN being

Table 3 Possible inflections on 'new' and different following elements

Inflection on 'new'	Followed by	Norwegian	German
Weak	Weak adjective	+	−
	Strong adjective	+	−
	Possessive	+	−
Strong	Strong adjective	+	+
	Weak adjective	−	%
	Possessive	−	??

frozen at the DP-level (although the latter is not always overt). Specifically, Norwegian has frozen DPs in isolation as argued in Subsect. 4.2, and we just demonstrated that the very same frozen DPs can occur elsewhere, namely under (secondary) *nye* yielding recursive patterns. German is different. Assuming that (prenominal) possessives are in the DP-layer, note that German *neu-* does not combine with a lower DP, but a non-DP is possible; compare (51b), on the secondary interpretation, to (55b).

Before moving on to the next subsection, we would like to point out that the cases discussed above are different from instances involving regular restrictive modification. As pointed out to us by a reviewer, it is indeed possible to distinguish two entities of the same name by adding an intersective adjective such as 'small' or 'big' (for different types of adjectives, see Kroeger 2019, 275–81). While it is not easy to find authentic examples for phrasal PN, suppose there are two stores or branches with the name *Nye Elses Blomster* 'New Else's Flowers'. In order to differentiate both, one could add a relevant distinguishing adjective, *lille* 'small' in (58a) and *store* 'big' in (58b). Crucially though, a free-standing determiner has to be added to the left periphery as well:

(58) a. den lill-e   Ny-e   Elses Blomster (Norwegian)
        *the small-*WK *New-*WK *Else's flowers*
        'the small New Else's Flowers'
     b. den stor-e   Ny-e   Elses Blomster
        *the big-*WK   *New-*WK *Else's flowers*
        'the big New Else's Flowers'

This makes the current cases different from the above instances, which lack a determiner in front of *nye*.[25] As mentioned above, *Nye Elses Blomster* refers to a

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[25] Instances with a free-standing determiner may occur with secondary *nye*:

(i) Den Nye Dikemark Pizza [restaurant] (Nw)
     The New Dikemark Pizza
     'The New Dikemark Pizza'

Crucially though, the definite article is unique to this and other specific names and cannot generally be added to *Nye*+PN. Again, phrasal PN in Norwegian are frozen.

different store than (unmodified) *Elses Blomster*, and it is not possible to leave out *nye* with the first name (even if there is only one such store). Indeed, it is not necessary to add an adjective like 'old' to the second name to make the relevant distinction (cf. the inherent PN *New York* vs. *York*). In fact, it is possible that although both names are linguistically related, they might offer different goods or services. Finally, PN like *Nye Elses Blomster* typically, but *not necessarily*, imply the existence of a different store, namely one with a name that lacks the adjective *nye*. We conclude that the cases discussed in the first part of this subsection do not involve regular restrictive modification (note also in this regard that we have pointed out above that only a handful of adjectives can be used to create new names highlighting the special status of these cases further).[26]

4.5 Three Domains

In the last subsection, we have shown that phrasal PN are recursive in that Norwegian *nye* 'new' can embed another PN yielding a new one. Interestingly, other elements can appear to the left of that. For instance, the adjective for 'new' can be preceded by a non-restrictive adjective and an accompanying determiner (59a). The same holds for German (59b):

(59) a. den   berømte   Nye   Elses   Blomster   ($\sqrt{\text{Nw}^2}$)
          the   famous   New   Else's   Flowers
          'the famous New Else's Flowers'
      b. das   berühmte   Neue   Ägyptische   Museum   ($\sqrt{\text{Ge}^{1,2}}$)
          the   famous   New   Egyptian   Museum
          'the famous New Egyptian Museum'

We propose that the comparative facts from Norwegian, including the varying interpretative options and the unexpected surface strings, follow from the proposal laid out in Sect. 3 and Subsect. 4.3 once some refinements are made. Specifically,

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[26] Given the data in (58), it seems clear that phrasal PN can also function as predicates (which allows them to combine with restrictive modifiers). There is debate, however, as to whether (inherent) PN enter syntax as individual entities (Longobardi 1994, 635–38, 646–52; Coppock and Beaver 2015, 381–83) or as predicates (Matushansky 2008; Muñoz 2019). As far as we can tell, the jury is still out about that. Assuming the presence of a referential pointer on a lower element (typically, the noun), we have sided here with standard introductory textbooks on semantics and logic (e.g., Heim and Kratzer 1998, 14ff), where names are often taken to be entities/individual constants [type <e>], and not predicates [type <e, t>]. Given this, we take PN that involve intersective modification as secondary usages where the name functions as a predicate. We assume that the latter are derived by some type-shifting operation, for instance, the insertion of an operator (see Muñoz 2019, 25 for the formulation of such an element along with a rejection of it due to lack of apparent evidence for it).

the Norwegian data clearly indicate the presence of different domains with phrasal PN. The combinatory options can be summarized as follows:[27]

(60)   Summary:

   1. Phrasal proper names have a frozen PRIMARY CORE. Below, this is marked by curly brackets.

   2. Elements can only be added to the left or right. Focusing on the left side for now, there are two types of additions (leading to the embedding of the primary core):
        a. Creation of a new proper name forming a SECONDARY CORE (e.g., by adding *nye* 'new' in Norwegian). This is marked by a second set of curly brackets.
        b. Construction of a regular left pheriphery (e.g., by adding a definite article and a non-restrictive adjective: Norwegian *det/den berømte* 'the famous').

Taking the Norwegian example from (59a) above, repeated here as (61a), we illustrate the three domains in (61b). The stored Lexical Entry for a phrasal PN with a secondary core looks as in (61c):

(61) a.   *den*   *berømte*   *Nye*   *Elses*   *Blomster*   (Norwegian)
             the   famous   New   Else's   Flowers

      b. $_\gamma$[regular left periphery $_\beta${ secondary $_\alpha${ primary core }$_\alpha$ }$_\beta$]$_\gamma$

      c.   *Nye Elses Blomster*:
           {↑NYE$_{[+P]}$ { BLOMST$_{[+P]}$, ELSE$_{[+P]}$; [+PL]$_{[+P]}$, [+DEF]$_{[+P]}$} [+DEF]$_{[+P]}$}

Linearly, the (regular) left periphery precedes the secondary core, and the latter precedes the primary core. Considering (61a,b), *nye* is, in a way, a linking element between the two other domains (provided the left periphery is present). Note also that the elements in the left periphery are not part of the stored set in (61c). Similar to German PN that lack a definite article in the original context, we suggest that these items are added to the Numeration along with the vocabulary elements from the Lexical Entry of the PN. To be clear then, the Numeration involves the elements from the Lexical Entry, and non-proprial elements such as non-restrictive adjectives and determiners can be added to it as well. The derivation will proceed on the basis of all these elements (for details, see Sect. 5). It will become clear that the domains are a function of the vocabulary elements in the Lexical Entries. With a definiteness feature present in Norwegian but not German, these domains may vary cross-linguistically in terms of their syntax.

It is worth pointing out that other elements can be in the peripheries. As seen in the discussion of German and Norwegian, unstressed, non-restrictive possessives can also be added in the left periphery (the same holds for demonstratives, not shown here):

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[27] Note that our use of the terms 'domain' and 'left periphery' is pre-theoretic here—the presence of different vocabulary elements in the Lexical Entry yields different domains with varying semantics, and these domains may involve syntactic reflexes in Norwegian but not German. This is different from other uses of these terms; for instance, Leu (2015) takes the extended projection of nouns, verbs, and adjectives to fall into three domains: a lexical layer, an inflectional layer, and a left periphery. The fixed syntactic alignment is clearly expressed for adjectives on page 42 of the aforementioned work, where he posits AP for the lexical layer, AgrP for the inflectional layer, and C$_a$P/xAP for the left periphery.

(62) a.   Ach, mein Peter (German)
           oh   *my*   *Peter*
           'Oh, my Peter'
      b.   Å,   min   Per   (Norwegian)
           oh   *my*   *Peter*
           'Oh, my Peter'
      b'. Å,   Per   min
           oh   *Peter* *my*
           'Oh, my Peter'

(63) a.   Ach, meine Deutsche   Bank   (German)
           oh   *my*   *German*   *Bank*
           'Oh, my German Bank'
      b.   Å,   mitt   Norske   Skog   (Norwegian)
           oh   *my*   *Norwegian* *Forest*
           'Oh, my Norwegian Forest'

These possessives establish a close emotional relation to the name and its bearer. Finally, non-restrictive relative clauses also appear in the periphery but on the right.

(64) a.   die   Deutsche   Bank,   die   übrigens   1869 gegründet wurde
           the   *German*   *Bank*   *which*   *incidentally* *1869* *founded*   *was*
           'the German Bank, which by the way was founded in 1869'
      b.   Norske   Skog,   som   forresten   ble   grunnlagt i   1962
           Norwegian *Forest* *which* *incidentally* *was* *founded*   *in*   *1962*
           'Norwegian Forest, which by the way was founded in 1962'

To take stock, the first point in (60) was derived in Sect. 3 above proposing the operation Proprialization followed by a regular derivation and constrained by the feature [+proper]. The discussion of Norwegian brought to light two differences from German: Phrasal PN in Norwegian are frozen at the DP-level, and they show characteristics of recursivity (not easily seen in German). As discussed in Subsect. 4.3, the first difference followed from the assumption that all stored sets of vocabulary elements in Norwegian involve a definiteness feature marked by [+proper]. The presence of the definiteness feature entails the presence of the DP-level in Norwegian, and the presence of the feature [+proper] explains the fact that the entire DP is frozen. In what follows, we derive the facts involving recursivity and the presence of non-proprial elements in the peripheries by refining the structural assumptions from Sect. 3 and Subsect. 4.3.

5 Domains as Multiple Layers in the Structure

Unlike in German, in Norwegian phrasal PN always involve a frozen DP-level. This will result in similar, but not identical, structures for German and Norwegian. The next two subsections begin by providing some new and some known arguments for the existence of different domains. This will lay the foundation for the postulation of the structures of more complex phrasal PN. The third subsection discusses some extensions. We start the discussion with the structure of Norwegian.

5.1 Structure of Norwegian

Above, we have seen that phrasal PN in Norwegian are frozen at the DP-level. Unlike in German, they can appear in argument position without an article. Furthermore, if an element is added to the left, certain unexpected patterns are possible. For instance, these patterns become visible in the transition from the primary to the secondary core, repeating the relevant data in (65a,b) and adding an instance where a numeral follows the adjective *nye* (65c):

(65)   a.   Ny-e   Grei-Ø   Kafeteria   (Norwegian)
           *New-*ᴡᴋ *Nice-*ꜱᴛ *Cafeteria*
           'New Nice Cafeteria'
     b.   Ny-e   Elses   Blomster
           *New-*ᴡᴋ *Else's   Flowers*
           'New Else's Flowers'
     c.   Ny-e   Fire   Vegger   [store]
           *New-*ᴡᴋ *Four   Walls*
           'New Four Walls'

In addition, recall the different interpretative effects with *nye* from above, which we also used to motivate the two different cores. To repeat then, it is clear that the primary core in Norwegian involves a DP.

     We can propose now that if *nye* is part of the primary core of the Lexical Entry, it is an ordinary adjective in Spec,AgrP followed by a regular lower structure (Subsect. 4.3). Being part of a regular structure, it receives a—what we have called —primary interpretation. If *nye* is part of the secondary core of the Lexical Entry, it will get a secondary interpretation. Specifically, unlike in the first case, we suggest that the second type of *nye* is an operator-type element (OP). Informally, this element takes an existing PN and returns a new one.[28] Structurally, it is a head in a functional phrase (FP). We propose that the head *nye* selects a proprial DP. Following the suggestion by a reviewer, we formulate the following Lexical Entry

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[28] More formally, with PN involving semantic entities (type $<e>$), we may say that *nye* is an element of type $<e,e>$. Note that common definite DPs can also be of type $<e>$. However, the Lexical Entry of *nye* (to be discussed) involves the selectional restriction [+proper], which will disallow common definite DPs to combine with *nye*.

involving a selectional restriction: nye_{OP}: ____ $DP_{[+proper]}$.[29] To be clear, *nye* has two different lexical entries that involve different interpretations: a regular adjective housed in Spec,ArgP and an operator occurring in a head position.

Structures similar to *nye* with a primary interpretation were illustrated in Subsect. 4.3. Focusing here on *nye* with a secondary interpreation, we can illustrate this as in (66). Note that there are two definiteness features, one in the primary core and one in the secondary core of the Vocabulary Entry in (66a). The latter also surfaces in a DP-layer but here outside the primary core as illustrated in (66b):

(66)   a. Ny-e   Elses   Blomster:
           New-WK   *Else's*   *Flowers*
           {↑NYE$_{[+P]}$ { BLOMST$_{[+P]}$, ELSE$_{[+P]}$; [+PL]$_{[+P]}$, [+DEF]$_{[+P]}$} [+DEF]$_{[+P]}$}

       b.   DP$_{[+p]}$
           _____|_____
       [+DEF]$_{[+p]i}$ DefP$_{[+p]}$
                       _____|_____
                   [+DEF]$_{[+p]i}$ FP$_{[+p]}$
                                   _____|_____
                               Nye$_{OP[+p]}$ DP$_{[+p]}$
                                            Elses Blomster
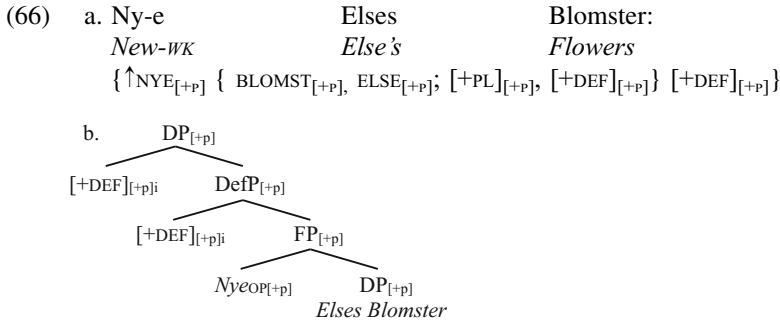
To be clear, similar to the cases involving the primary interpretations, the presence of the definiteness feature in the secondary core also yields a DP. In other words, all PN, whether they involve primary or secondary cores, project DPs in Norwegian.

Note again that these structures can be referential. Recalling that the definiteness feature and its [+proper] marking are both syntactic in nature, we point out that there is no element in the DP-level that brings about referentiality. If the current discussion is on the right track, then this adds to the discussion of German confirming that referentiality does not originate in the DP-level. As in German, referentiality seems to come from a lower element. Again, we assume that it is due to the referential pointer, here on the operator *nye*.

If non-restrictive adjectives and non-proprial determiners are present, they are part of the Numeration; that is, the Numeration consists of the primary core, the secondary core—both part of the Lexical Entry, and non-proprial elements. On par with clausal embeddings (e.g., complement clauses; cf. Chomsky's 2000, 106 notion of subset Lexical Array), we assume that the vocabular elements of the primary core (embedded under *nye*) are Selected and Merged first. Next, the elements from the secondary core are Merged and finally the non-proprial elements are inserted. We propose that non-restrictive adjectives are Merged differently from restrictive ones. Rather than in Spec,AgrP, we suggest here that they are adjoined to DefP, the left edge of the secondary (referential) core in Norwegian. This is

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[29] The semantic and structural properties of this secondary *nye* might be the reflex of a grammatical-ization process (which often involves a change from an element in a specifier position to an element in a head position).

relatable to ideas from Partee (1973, 54), who points out that non-restrictive modifiers combine with the rest of the noun phrase above the definite article (i.e., they combine with referential expressions) but that restrictive ones combine below the definite article (also Jackendoff 1977, 171–82; Roehrs 2009, 97–116; Pfaff 2015, 2017). Non-proprial determiners are inserted in the DP-level. The simplified derivation of (67a) is as in (67b) (the different domains are delineated by arches):[30]

(67) a. den berømt-e   Ny-e   Elses Blomster
         the famous-WK New-WK Else's Flowers
         'the famous New Else's Flowers'

     b.   DP
            ┌───────────┴─────────┐
          den   DefP
                    ┌────────┴────────┐
                 berømte   DefP
                          ┌────────┴────────┐
                                      FP
                              ┌────────┴────────┐
                          Nye_OP   DP
                                      Elses Blomster
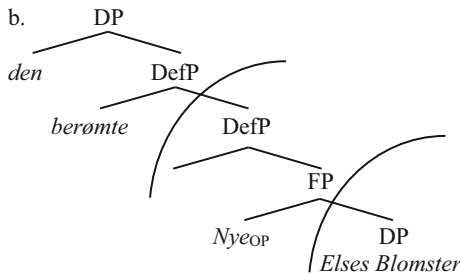
Note that due to the movement of the definiteness feature from Def to D, the highest DP is specified for definiteness. This in turn accounts for the weak ending on the lower, non-restrictive adjective. In other words, there is some limited, morphological interaction between the non-proprial adjective and the proprial definiteness feature in (67b).

Finally, we observed that nominal elements in Norwegian are sensitive to definiteness. This is particularly clear with adjective inflections. We followed previous work in assuming that the feature [DEF] seems to be an integral part of noun phrases in Norwegian. As proposed above, phrasal PN are related to common DPs (e.g., they share the same basic derivation). Thus, if common DPs are sensitive to definiteness, then their phrasal PN counterparts must also have that feature. Now, since these nominals form PN, all elements that are part of the PN must be marked by the feature [+proper]. This yielded a frozen DP-level with phrasal PN in Norwegian. It is well known that nominal elements in the other Scandinavian languages are also sensitive to the presence of definiteness (for general comparative discussion, see, for instance, Julien 2005; Schoorlemmer 2012; Vangsnes 1999). We predict then that these languages also involve a frozen DP-level. As far as we know, this prediction is borne out.

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[30] As suggested by a reviewer, the DP making up the primary core in Norwegian could be taken as a phase (Chomsky 2001, 2008). This would immediately explain the frozenness of the primary core to outside syntactic operations. Note though that this does not explain the frozenness to inside syntactic operations (e.g., certain DP-internal reorderings). It is for this reason that we continue to assume that the feature [+proper] is responsible for the observed frozenness.

5.2 Structure of German

The above discussion has not revealed any unexpected patterns in German. That German involves regular structures seems to be confirmed by the inflections on adjectives in these cases. An important result of Roehrs and Julien (2014) was that inflections on adjectives in German are sensitive to structure such that preceding determiners only bring about weak inflections in simple, ordinary noun phrases:

(68) a. der   groß-e Indianer   (German)
        the   big-WK Indian
        'the big Indian'
     b. mit   dem   deutsch-en   Chef
        with   the   German-WK boss
        'with the German boss'

Complex structures as in (69a,b) fare differently. Here, adjectives must take a strong ending despite the presence of a preceding determiner (examples are adopted from Roehrs 2015, 251, 258)

(69) a. der   Indianer [Groß-e*(r)   Bär]   (German)
        the   Indian   Big-ST   Bear
        'the Indian Big Bear'
     b. mit   dem   [Deutsch-e(*n) Bank]-Chef
        with   the   German-ST   Bank-boss
        'with the German Bank-boss'

Note that both (69a,b) involve two nouns. Taking Grimshaw's (1991) discussion of extended projections into account, this entails two separate nominal structures (the embedded nominal is indicated by brackets above). With the adjective in a different, separate nominal from the preceding definite article, the adjective and determiner are not in the regular structural constellation, and this explains the strong ending on the adjective (for some discussion, see Roehrs 2015).

Now, we have seen that a demonstrative or a possessive determiner can surface in the left periphery of PN (70a). Interestingly, both of these elements trigger a weak ending on the adjective that is part of the PN (70b). In fact, note that all the adjectives following the definite article must have a weak ending, independent of whether they are part of the primary core, the secondary core, or the left periphery (70c):

(70) a. diese /   meine   Deutsche   Bank   (German)
          this /   *my*   *German*   *Bank*
          'this / my German Bank'

      b. Ich   halte   viel   von   dieser / meiner Deutsch-e*(n) Bank.
          I   *think*   *much*   *of*   *this*   / *my*   *German-WK*   *Bank*
          'I think highly of this / my German Bank.'

      c. das   berühmt-e(*s) Neu-e(*s) Ägyptisch-e(*s) Museum
          the   *famous-WK*   *New-WK*   *Egyptian-WK*   *Museum*
          'the famous New Egyptian Museum'

Now, in contrast to (69a,b), the strings in (70a–c) have only one noun entailing the presence of one (complex) nominal. With the adjectives and definite article in the same nominal, this accounts for the weak ending on all adjectives on par with (68a, b) above.[31] Overall, this confirms that these phrasal PN have a regular syntactic structure in German, even in the transition from one domain to another.

With that in mind, the different domains can be related to the following structure that involves one nominal. We illustrate (70c) as in (71). There are two differences to Norwegian. First, since a definiteness feature is not present in the Lexical Entries in German, there is no second, lower DP. Second, recall that the status of secondary *neu-* is not as clear in German as in Norwegian. For concreteness, we will put this element in Spec,FP, which is followed by a regular lower structure. The non-restrictive adjective is Merged outside the secondary domain; here, it is adjoined to FP:

(71)
```
              DP
          ___/  \___
        das         FP
              ___/   \___
          berühmte        FP
                      __/   \__
              Neue_OP        AgrP
                    Ägyptische Museum
```
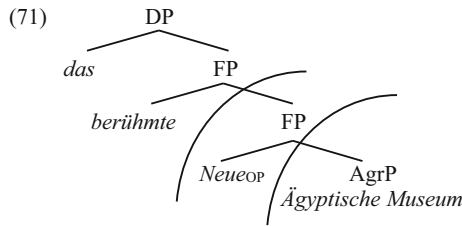
This yields a structure that is similar (but not identical) to Norwegian, the main differences being the status of *neu-* and the nominal following *neu-*. Indeed, note that both the primary and secondary domains are not the same: DP and DefP in

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[31] In the discussion of Norwegian, we have seen that non-proprial elements (i.e., non-restrictive adjectives) can morphologically interact with proprial elements (i.e., [+DEF]) in the left periphery. If so, non-proprial elements such as determiners in German should be able to interact with proprial adjectives and their inflectional properties as well. As seen in the main text, this seems to be the case. While there are other options, we assume for current purposes that the determiner brings about a weak ending on the following adjective (for instance by Impoverishment as in Sauerland 1996) and that the resultant weak ending is copied onto the lower adjectives (e.g., Murphy 2018, cf. also Norris 2014, 128, 148–50). Note that this copying does not cross a DP-layer in German and as such, this fits well with the above discussion that German does not involve a DP in the lower part of this structure.

Norwegian vs. AgrP and FP in German. Recall that domains are defined by the Lexical Entries (and should not be equated with structurally consistent zones across different languages). Related to this, the left periphery is not cross-linguistically fixed—elements to the left of the core(s) are in the periphery.

While the status of *neu-* as an operator in German is not as clear as in Norwegian, there is some evidence that this element may be in the process of developing into an operator as well. At least in German, this operator-type element seems to have some features of a determiner.[32] Comparing (72a) and (72b), recall from above that some speakers marginally allow *neu-* to be followed by a weak adjective:[33]

(72) a.   Neu-es   Ägyptisch-es   Museum   (German)
          New-ST   Egyptian-ST   Museum
          'New Egyptial Museum'
     b.% Neu-es   Ägyptisch-e   Museum
          New-ST   Egyptian-WK   Museum

This is a typical feature of a definite determiner in German. Indeed, such properties have also been identified with so-called adjectival determiners. A well-known example involves *folgendes* 'following'. Note that this element can, with some variation, take a strong or weak adjective (Roehrs 2009, 167–168; van de Velde 2011).

(73) a.% folgend-es   interessant-es   Beispiel
          following-ST   interesting-ST   example
          'the following interesting example'
     b.   folgend-es   interessant-e   Beispiel
          following-ST   interesting-WK   example
          'the following interesting example'

The option of (73b) seems to be developing in (72b).

Finally, if German does not involve a definiteness feature in its phrasal PN including in those extended by *neu-*, then we predict that German requires a definite article when an extended PN appears in argument position but Norwegian does not. This is borne out:

(74) a.   *(Die)   Neu-e   Roland-Apotheke   ist   aber   teuer!   [store]   (Ge)
          the   *New-WK*   *Roland-Pharmacy is*   *PRT* *expensive*
          'The New Roland Pharmacy is quite expensive.'

---

[32] Note in this regard that Longobardi (1994, 633–34) argues that (non-expletive) determiners are operators that bind variables.

[33] At first glance, this difference in adjective endings in (72b) could be taken as morpho-syntactic evidence for the transition from the primary to the secondary core. However, the corresponding interpretation, namely that *neues* has a secondary reading only, seems to be less clear. This probably has to do with the fact that this element is only in the process of undergoing the change to an operator/determiner.

b. Ny-e   Amore Pizza   er   ganske   dyr.   [restaurant]   (Nw)

New-WK   Amore Pizza   is   quite   expensive

'The New Amore Pizza is quite expensive.'

We close this section with another prediction and some remarks about the possible relatedness of phrasal PN to idioms.

5.3 Some Further Considerations

We have seen that in the transition from the primary to the secondary core, there are some unexpected patterns in Norwegian. With the DP frozen in the latter language, we predict that in the absence of a secondary core, there should also be some unexpected pattern in the transition from the primary core to the left periphery in Norwegian but not German. This is indeed borne out.

When a possessive in Norwegian is followed by a phrasal PN, that PN can start in a strong adjective (75a). With ordinary DPs, the adjective must show a weak ending (75b):

(75) a. Vårt   Ny-tt   Hjem   er   det   beste   i   verden. [company] (Nw)

        our   New-ST   Home   is   the   best   in   world

        'Our New Home is the best in the world.'

    b. vårt   ny-e   hjem

        our   new-WK   home

        'our new home'

In contrast, possessives in German combine with a phrasal PN in the expected, regular way:

(76) a. unser   Deutsch-es   Ärzteblatt   [magazine]   (De)

        our   German-ST   Physician.paper

        'our German Physician Paper'

    b. unser   deutsch-es   Auto

        our   German-ST   car

        'our German car'

With Norwegian PN involving DPs, the question arises as to where the preceding possessive in (75a) is located.

In more tentative terms, there seem to be two options: (i) either the possessive itself is in the DP-level, and there is a null linking element that takes the PN, itself a DP, as a complement (cf. the structure in (67b)), or (ii) the possessive is in a position higher than the DP-level. There seems to be evidence that the second option is, at

least in principle, possible. While the data in Norwegian are not as clear, Danish, a language closely related to Norwegian, shows that there is a position above the DP proper (see also Roehrs 2019).

To begin, note that Danish does not involve a suffixal article if a demonstrative is present (77a). Furthermore, the free-standing article is syntactically optional if a demonstrative and an adjective are present (77b) (the data are from Julien 2005, 113):

(77) a. dette hus   (Danish)
          this   house
          'this house'
      b. dette (det)   høje hus
          this   the   high house
          'this tall house'

Now, with nouns involving human(-like) reference, third-person pronouns can replace the demonstrative above. For such cases, Johannessen (2008, 173–74) points out that the noun must have a suffixal determiner (78a) and that the free-standing determiner is obligatory when an adjective is present (78b) (the data are from Strahan 2008, 212–13):

(78) a. ham mand-en   (Danish)
          him   man-DEF
          'that guy'
      b. ham den   store mand
          him   the   big   man
          'that big guy'

Both Johannessen (2008) and Strahan (2008) analyze the pronouns in (78) as a kind of demonstrative. They conclude that these demonstratives are followed by regular DPs. If so, then we have some evidence that there is a position above the DP-level. We will tentatively assume that possessives such as in (75a) can also be in that position. We turn to the possible relatedness of phrasal PN to idioms.

Bruening (2010) provides a detailed account of idiom formation. For idioms such as (79), he formulates the components in (80) to (82) (p. 532):[34]

(79) a. throw NP a bone
      b. give NP a wide berth

(80) *The Principle of Idiomatic Interpretation*
      X and Y may be interpreted idiomatically only if X selects Y.

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[34] Note that unlike the current paper, Bruening (2010) does not provide detailed vocabulary entries.

(81) *Constraint on Idiomatic Interpretation*
      If X selects a lexical category Y, and X and Y are interpreted idiomatically,
      all of the selected arguments of Y must be interpreted as part of the idiom
      that includes X and Y.

(82) Lexical categories are V, N, A, Adv.

Most importantly for current purposes, non-selected items like determiners, certain
cases of adjectives, and possessors may vary freely within idioms (83a-c) (examples
taken from Bruening 2010, 533):

(83) a. pull *some discreet / a few / yet more* strings
      b. kick the *filthy* habit
      c. lose *X's* cool

Furthermore, as already seen in (79), some idioms have open slots. Moreover, some
of these idioms can undergo the dative alternation (84a,b) and passivization (84c)
including changes in the verbal tense (examples taken from Bruening 2010, 539,
541; see also Jackendoff 1997, Chap. 7):[35]

(84) a. read NP the riot act
      b. read the riot act to NP
      c. The riot act was read to the protesters.

    As discussed in the current paper, this is very different from phrasal PN—the
latter are always frozen. Furthermore, as already pointed out by Anderson (2007,
315), PN are referential but idioms are not. Thus, while certain idiosyncratic aspects
of idioms are relatable to phrasal PN (e.g., both may have partially non-
compositional semantics), it appears that these two types of elements should not
receive the same account (although the non-compositionality of idioms might lead
us to expect that the latter have special vocabulary entries as well).

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[35] It is by now a standard assumption that passive formation involves movement. This means that idioms
are syntactically flexible. If so, this may provide a non-lexical account of scope ambiguities with certain
idioms. Kroeger (2019, 264–65) points out that the idiom *All that glitters is not gold* is ambiguous
between the universal quantifier taking wide scope or narrow scope as regards the negation. Importantly,
under the intended reading of the idiom, the universal quantifier has narrow scope, which is different from
its surface position in the sentence ((i) is taken from Kroeger 2019, 265):

(i)   ¬[*all* x: GLITTER(x)] GOLD(x)

  If idioms tolerate movement (e.g., the subject has moved from a lower position to Spec,TP) and scope
ambiguities are accounted for by movement or reconstruction (May 1985; Heim and Kratzer 1998, 193ff,
and much subsequent work), then the narrow scope reading provides another piece of evidence that
idioms are not syntactically frozen.

6 Conclusion

In this paper, we discussed phrasal PN in German and Norwegian. We followed Roehrs' (2020) analysis of these types of nominals in German. In conjunction with the operation Proprialization, this proposal advocates for regular derivations. This explains the hybrid properties of phrasal PN. Norwegian exhibits properties that are different from German or not as easily seen, a frozen DP-level and recursivity, respectively. The presence of a definiteness feature marked by [+proper] in the stored Lexical Entries and the operator *nye* explained those facts in Norwegian. More generally, given that phrasal PN are clearly recursive (in Norwegian) and that proprial articles can and sometimes must be left out with phrasal PN (in German), it seems unlikely that referentiality originates in the DP-level. Rather, we follow Köhnlein (2015) and Roehrs (2020) in that referentiality is due to the referential pointer present on a lower element in the DP.[36] Finally, we focused in this paper on a constrastive discussion of phrasal PN in German and Norwegian. The investigation of phrasal PN in other languages should help us inhance our understanding of these constructions. Of particular interest would be other languages with polydefiniteness such as Greek.

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[36] Note that this immediately accounts for referentiality in languages that do not have articles.

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