On being [feminine] and [proper]

Ora Matushansky

SFL (CNRS/Université Paris-8)/UiL OTS/Utrecht University

1. Introduction

While the main syntactic feature of proper names distinguishing them from common nouns is often considered to be the absence of a definite article, empirically, such is not the case: many proper names do require an article. In English, for instance, quite a few country names, all names of rivers, oceans, seas, archipelagoes, and occasionally city names cannot appear bare:

(1) a. the Netherlands, the Thames, the United Kingdom, the Hague
b. the Hebrides, the Alps, the Pleiades

Whereas in English proper names of people are bare, in a number of languages (including Modern Greek and many German dialects) [human] or [animate] proper names require the definite article in argument positions (examples via Ghomeshi and Massam 2009):

(2) a. La Maria — Catalan, Gili 1967:26
DEF.FSG Mary

b. L' Enric
DEF Henry

c. En Joan
DEF.MSG John

(3) Ko e tele e Sione a Sefa. — Niuean, Seiter 1980:29.73d
PRES kick DEF.ERG Sione DEF.ABS Sefa
Sione is kicking Sefa.

The question therefore arises how the presence or absence of the definite article in proper names is determined. Several syntactic treatments for bare proper names have

For German data and insights I am indebted to Patricia Cabredo Hofherr, Berit Gehrke, Klaus von Heusinger, Hans Obenauer and Dolf Rami, with some help from Thomas Leu. Many thanks also to the audiences at the second *Workshop on Proper Names* (University of Göttingen, June 6-7, 2014), where this research was first presented, and at Utrecht University (June 27, 2014), Frankfurt University (April 30, 2015) and *Proper Names Workshop* (CEU, Budapest, May 18-19, 2015), where the first part of it was discussed.

been proposed, which can be divided into two types: one presumes that no syntactic position for the determiner is present with proper names (no D°) and the other appeals to various morphosyntactic processes to account for the lack of its overt exponent -- phonologically null D° (Ghomeshi and Massam 2009), overt movement of the proper name to D° (Longobardi 1994) or one of its morphological counterparts, such as m-merger, Morphological Merger, or Local Dislocation.[1]

In this paper I will argue that the presence of an overt definite article on a proper name in German is determined by whether that proper name is formally specified for gender or number. I will show that not only this empirical generalization accounts for the distribution of definite articles with toponyms, but also provides the mechanism for dealing with the dialectal use of definite articles with [animate] proper names. I will then discuss how the different morphosyntactic approaches discussed above can deal with this generalization and discuss its interaction with the choice of the relative pronoun with proper names.

2. The overt definite article with German proper names

Moltmann 2013 was, to the best of my knowledge, the first to note that proper names in German do not form a uniform class with respect to article omission and the choice of relative pronoun (on the latter see below). In particular, she observes that [animate] proper names, as well as proper names of palaces and churches, appear without the definite article[2] and require the d-series of relative pronouns:[3]

(4) a. Sanssouci, das kleiner ist als Versailles — Moltmann 2013
Sanssouci REL.NSG smaller is than Versailles
Sanssouci, which is smaller than Versailles

b. Zarskoe Selo, das/??was grösser ist als Pavlovsk
Tsarskoye Selo REL.NSG/REL.W bigger is than Pavlovsk
Tsarskoye Selo, which is bigger than Pavlovsk

City names, on the other hand, while also prohibiting the definite article, require the w-series of relative pronouns, and a number of other toponyms require the definite article and the d-series at once:

(5) München, was/*das ich sehr gut kenne — Moltmann 2013
Munich REL.W/REL.NSG I very well know
Munich, which I know very well

(6) der Fujiyama, der/*was zuletzt im Jahre 1707 ausgebrochen ist
the.M Fuji, REL.MSG/REL.W to.last in.the year 1707 erupted is
the Fuji, which has last erupted in 1707

---

[1] Tangential to this, but nonetheless important is the issue of the semantics of the definite article with proper names: it can either be semantically vacuous, or expletive (Longobardi 1994), or, just like with common nouns, introduce (or spell-out) the uniqueness presupposition associated with proper names (Matushansky 2008). Having discussed this question before, I will not address it here.

[2] The behavior of animate proper names in German is subject to dialectal variation: there are dialects (e.g., Swiss German) where the use of a definite article with a proper name is obligatory in argument positions. More on this below.

[3] *Was* is grammatical in (4b) if the proper names denote cities rather than the corresponding palaces.

Moltmann proposes to deal with this phenomenon by assuming that some proper names (those appearing with an overt definite article) syntactically contain a covert sortal introducing what amounts to a quotation. The alternative that I defend below is that the definite article is overt in the presence of formal number or gender features. In particular, the plural number specification is always overt ([plural]), leading to the obligatory definite article with all plural proper names (e.g., archipelagoes, mountain chains, plural country names), and I will presently show that non-default (masculine or feminine) gender of a proper name always leads to an overt definite article.

2.1 Inherently fixed gender and non-bare inanimate proper names

While Moltmann concentrates on proper names that share the gender of the associated sortal (names of mountains, lakes or temples), more revealing are proper names in lexical-semantic categories that are not associated with a particular analogical gender (e.g., planets or rivers). Strikingly, proper names of rivers or planets, which all appear with the definite article in German, are, to the best of my knowledge, also all either masculine (*der Jupiter*, *der Rhein*) or feminine (*die Venus*, *die Wolga*).

Turning now to country names, all syntactically simplex country names with an obligatory definite article have the gender/number specification that is distinct from neuter singular (and such is also the case in Dutch):[4]

(7) a. der Irak, der Jemen… masculine
b. die Schweiz, die Türkei… feminine
c. die USA… plural

Furthermore, the only German city name with a definite article that I am aware of (*der Haag* 'the Hague', a calque of *Den Haag*) is masculine. Given that the default gender in German is neuter (for inanimate entities at least), it seems safe to assert that a non-default gender specification on proper name yields a definite article.

A close parallel to these effects can be observed in Romance languages, where the definite article may distinguish proper names of women. Thus, as observed by Renzi 1997:168, in some Northern Italian dialects women's names require an overt definite article, while men's names come with the definite article in a subset of these dialects. Likewise, in Spanish and in French women's surnames in argument positions used to require the definite article (Meyer-Lübke 1890:187); this is still true for the surnames of famous female singers and actors in Modern French (Gary-Prieur 1994), as well as in Italian (Longobardi 1994):

(8) *(La) Callas ha cantato. Longobardi 1994
DEF-FSG Callas AUX sing-PART
Callas sang.

The difference between Romance feminine and masculine animate proper names follows straightforwardly from the fact that the surface masculine in Romance may correspond to the lack of gender or to the semantically interpretable [masculine] (see Percus 2011 for Italian, the same intuition is exploited for [human] nouns in Modern Greek by Merchant 2014). Given that the feminine is always marked with respect to

[4] In Dutch, there seems to be a tendency towards simultaneously dropping the article and switching the gender to neuter (van Langendonck 2007:208 discusses the article drop with *the Ukraine*, *the Sudan*, etc., in Dutch and German and the accompanying subtle change in the attitude, but does not note the corresponding gender switch).

the masculine, the presence of the definite article only with feminine proper names can be attributed to the availability of asymmetric phi-feature specification for proper names: [feminine] for proper names of women as opposed to no gender specification for proper names of men. In a subset of dialects specifying proper names for gender masculine proper names are also marked, with the feature [masculine]. Assuming that in standard Italian, proper names of animate individuals are not formally specified for the feature of gender at all (i.e., that their gender is purely semantic) completes the observed pattern: if the presence of the definite article with proper names of animate individuals is conditioned by the presence of a formal phi-feature, then it would be impossible for masculine proper names to bear a formal gender feature without the same being true or feminine proper names.

With the same tools we can account for those dialects of German where proper names of humans are introduced by the definite article: in these dialects also, gender is not merely a semantic (or pragmatic) property of animate proper names, but their formal property as well.

2.2 Extension to inanimate proper names

As discussed above, inanimate proper names that are lexically specified for gender or number in German appear with an overt definite article. The same turns out to be true for whole lexical-semantic classes of proper names. In fact, all the obligatorily non-bare proper names that Moltmann 2013 discusses (mountains, temples and lakes) are masculine, which is a non-default value for inanimate entities:[5]

(9) a. der Fujiyama, der Etna (but also: *die Zugspitze*) — mountains
b. der Mansarovar, der Lago Maggiore — lakes
c. der Parthenon, der Houriaji — temples
d. der Atlantik (cf. *der Atlantische Ozean*), der Indik... — oceans

Whatever mechanism is responsible for gender assignment in these cases, it seems obvious that proper names in these lexical-semantic classes are formally specified for gender, confirming the correlation between inherent formal gender specification of a proper name and the presence of an overt definite article. Conversely, in a classic double-dissociation pattern, bare inanimate proper names, such as names of cities and most names of countries, are neuter, as can be demonstrated by the agreement they trigger when they are modified:

(10) a. das schöne Deutschland
the-NSG beautiful-NSG Germany
the beautiful Germany

b. das schöne München, das ich gut kenne
the-NSG beautiful-NSG Munich REL.NSG I well know
the beautiful Munich, which I know well

[5] The mechanism by which gender is assigned within a lexical-semantic class is known as "analogical gender" (see Poplack et al. 1982 for code switching) and is observed with common nouns as well. For instance, names of trees are uniformly feminine in Latin, loanwords denoting cheeses are all masculine in Modern French (*mozzarella* being the only exception), names of car models are feminine in Italian and masculine in German, etc. Some investigation of the matter can also be found in De Clercq 2008.

It is clear from the previous discussion that to account for the distribution of the overt definite article in German it is necessary to assume that this neuter corresponds to the absence of gender, and the same would be true for anarthrous country names. Independent evidence that the neuter agreement pattern here comes from the absence of gender can be drawn from the use of the w-series in relativization, as in (5a): it is precisely the relative pronoun that is used in the absence of phi-features – with the so-called *honorary NPs*, including *that*-clauses, with VP- and NP-predicates, with mass nouns denoting kinds, with intensional NPs and with single-word quantifiers, vague numerals and pronouns (e.g., *alles* 'everything', *das* 'that', etc.):

(11) unter dem Bett, was ein guter Ort ist, um Koffer zu verstauen
under the bed REL.W a good place is in.order suitcases to store
under the bed, which is a good place to store suitcases

(12) a. Hans sang, was/*das Maria auch tat. Moltmann 2013
Hans sang, REL.W/REL.NSG Maria too did
Hans sang, which Maria did too.

b. Hans sucht eine Sekretär-in, was/*die Maria auch sucht.
Hans seeks a.FSG secretary-F REL.W/REL.FSG Maria too seeks.
Hans is looking for a secretary, which Maria is looking for too.

c. Magnesium, was lebenswichtig ist,
magnesium what vital is
magnesium, which is of vital importance

d. alles/ nichts/ viel/ vieles, was/*das
everything nothing much many.things REL.W/REL.NSG

The hypothesis that the neuter can correspond to the absence of gender, as well as to the explicit neuter gender specification explains why the correlation between the non-neuter gender and the overt definite article is not a bidirectional: there exist some neuter toponyms with an obligatory definite article -- some names of non-independent sub-regions and compound names of mountains formed with the neuter noun *-horn* 'horn':

(13) a. *das Saarland* 'Saarland', *das Baskenland* 'the Basque country'…
cf. *Deutschland* 'Germany', *England*

b. das Matterhorn, das Weisshorn, das Rothorn…

The hypothesis that these proper names are specified as [neuter] accounts for the appearance of the overt definite article, but can be also independently motivated by the presence of a detectable neuter noun forming part of the toponym in question.[6]

[6] Susi Wurmbrand (pers. comm.) notes a telling distinction between two kinds of toponyms ending in the inherently feminine morpheme *-au*, originally meaning 'pasture, meadow': with *die Leopoldau* (a district of Vienna) and *die Wachau* (a valley in Austria), this morpheme is preceded by a glottal stop, as in phrasal phonology, and inherits its feminine gender, suggesting complex structure, while with city names, such as *Donau*, *Dachau* or *Stockerau*, no glottal stop is present. It seems that neuter region names, as in (13a), can be differentiated from genderless country names, as in (13b), by assuming that the former also contain the neuter morpheme *-land* as a separable component. Since the position of the stress does not distinguish between the two formations in *-au*, it will not permit us to independently distinguish the putative two variants in *-land* either.

The same explanation can potentially account for the overt definite article with *Das Vereinigte Königreich* 'the United Kingdom' vs. *Österreich* 'Austria', but here also no independent evidence for a structural difference is available. However, it is possible to demonstrate that even in those lexical-semantic classes where the default gender is non-neuter, the presence of a nominal head inside a morphologically complex proper name determines its gender, as is the case with e.g., *spitze* 'peak$_F$' for mountains:

(14) a. der Fujiyama, der Etna, der Vesuv, der Kailash… Moltmann 2013
b. die Zugspitze

Given the existence of proper names derived from definite descriptions (e.g., *the Eiffel Tower*, see Rabern 2015), exceptions to lexically or semantically driven gender assignment are not surprising. Yet linking the overt realization of the definite article to gender (which is in turn given by the lexical-semantic class) is a clear improvement in view of lexical exceptions (such as *die Schweiz*), which a direct link cannot handle.

3. The syntax of German proper names

Hypothesizing that there is no principled difference in the semantics of proper names such as *the Bronx*, which are introduced by the definite article, and those, like *Berlin*, which are not, it remains to be determined which side of the phenomenon is to be taken as the default: is it the absence or the presence of the definite article that needs to be explained? Starting with the assumption that the definite article appearing with proper names is, like the definite article appearing with common nouns, located in D°, it seems likely that D° is projected also with bare proper names, in which case it is the lack of an overt definite article that needs to be explained.

The alternative is that bare proper names are not projected as DPs. The same issue arises more broadly with languages that lack definite articles: can D° be projected in definite NPs in such languages in the absence of an overt determiner (Bowers 1991, Longobardi 1994, Pereltsvaig 2007, etc.) or is it not (Corver 1992, Chierchia 1998, Baker 2003, Bošković 2005, among others)? Two reasons lead me to hypothesize the presence of the DP layer in bare proper names. On the one hand, proper names do not seem to differ in external syntax in function of whether they are bare or not, which suggests no difference in internal structure. On the other hand, as long as it remains the issue of debate if the proprial definite article has any semantic contribution (for evidence that proper names in argument positions contain a naming predicate and an iota operator see Matushansky 2008), the type-shifting operations proposed to deal with bare definite NPs cannot be straightforwardly extended to proper names.

I will therefore address the question of how the absence of an overt definite article with proper names is morphosyntactically represented on the assumption that proper names are uniformly DPs. Two options can be envisaged: either D° with some proper names can be realized as the phonological zero, or some syntactic or morphological operation is responsible for its absence with those proper names.

3.1 N°-to-D° movement, etc.

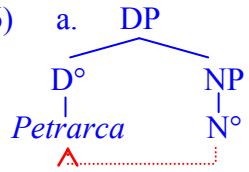
Longobardi 1994 observes that in Italian proper names may appear with the definite article. The variation may be stylistic, grammatical, or dialectal (although he does not discuss the fact that it can also be conditioned by an individual proper name):

(15) a. Petrarca è uno dei miei poeti preferiti
Petrarch is one of my poets favorite

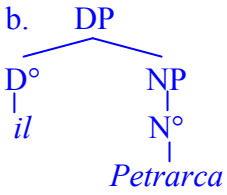
b. Il Petrarca è uno dei miei poeti preferiti
the Petrarch is one of my poets favorite
Petrarch is one of my favorite poets.

To account for this contrast Longobardi proposes that proper names may undergo N°-to-D° movement:

(16) a.



b.



Setting aside the question of whether N°-to-D° movement accounts for the Italian data (modification of any kind yields an obligatory overt definite article, though head-movement in the VP-TP-CP domain is known to not be sensitive to the presence of modifiers), the question arises if it can deal with the German facts. The first issue is naturally that of the trigger: why does N°-to-D° movement happen?

The answer might come from the special feature [proper]. Such a feature seems to be independently necessary in order to account for the fact that the definite article that appears with proper names takes a special form in a number of languages, including Catalan, as in (2), Northern Norwegian and Fijian (from Alderete 1998):

(17) a. a oro
DEF village
the village

b. a gone
DEF child
the child

Fijian

(18) a. o Waitabu
DEF Waitabu
Waitabu (place)

b. o yau
DEF 1SG
me!

c. o Jone
DEF John
John

Fijian

If there exists a morphologically manifest feature [proper], it is also reasonable to assume that this feature can be syntactically active as well. N°-to-D° movement can therefore be triggered by the future [proper], but the question arises why it should fail when the proper name is endowed with phi-features.

The same problem arises with such morphosyntactic operations as Morphological Merger, Local Dislocation, m-merger, etc.: the trigger for the absence of the definite article is the absence of features -- in other words, it becomes necessary to formalize the intuition that phi-features somehow block these operations.[7] One reasonable way to ensure this is by projecting phi-features as independent functional heads: Num° for

[7] Gennaro Chierchia and Ede Zimmermann (pers. comm.) suggested to me that the presence of phi-features forces the proper name to function as a predicate, either as a result of coercion (IDENT) or due to its underlying ambiguity. Unfortunately, for this hypothesis to work it is necessary to assume that the relevant phi-features are uniformly interpretable, i.e., that the feature [feminine] in *die Schweiz* has a genuine semantic contribution, and furthermore that they are interpretable as identity functions from sets to sets (rather than the more conventional ⟨e, e⟩ type proposed by Sauerland 2003 and Heim 2008). While I would tend to agree with the premise that phi-features are interpretable at LF, the hypothesis that the predicate denotation is necessary for phi-features is otherwise unmotivated. A purely semantic explanation seems therefore untenable.

number (cf. Ritter 1991, 1993), Gen° (Picallo 1991, 2005) for gender, etc., with the obligatory premise that the proper name does not undergo head-movement to any of these functional heads, which therefore block its movement to D°. Given that gender and number of inanimate proper names is generally lexical with no obvious semantic connection (however it might be implemented), it remains an open question whether and how this type of analysis can be applied here without additional stipulations.

3.2 Phonologically null D°

A reasonable alternative to the operational proposals sketched above is a realizational view, such as the hypothesis proposed by Ghomeshi and Massam 2009. As they note, given that proper names may be introduced by a special proprial definite article, it is not unreasonable to hypothesize that in some languages this article is realized as the phonological zero.

One problem with this view is the effect of modification, even non-unrestrictive modification, as with *the ever-absent Mr. O'Flaherty*: in order to force the appearance of an overt definite article with modified proper names it is necessary to block the transmission of the feature [proper] in such cases. In other words, the issue becomes again syntactic rather than morphological. However, assuming that this can be done, the second problem emerges: the fact that the phonological zero in this case does not seem to correspond to the least marked variant. Indeed, it is nouns that are marked [proper] that would surface with the null allomorph, whereas their common counterparts would presumably appear with the overt definite article.

Are there any common nouns without phi-feature specification, i.e., is this less marked variant instantiated? One clear candidate is mass nouns, which, as noted by Moltmann 2013, combine with the w-series of relative pronouns (12c), patterning in this respect with honorary NPs. Evidence for the underlying presence of the definite article here comes from two sources: on the one hand, in Romance languages kind-denoting nouns appear with an overt definite article, and on the other hand, even in Germanic the definite article surfaces with null-derived deadjectival nouns, such as *the impossible* or *the rich*.

There are however good reasons to discard the hypothesis that the lack of an overt definite article with kind denotation is due to the same mechanism that is responsible for the bareness of proper names. Firstly, the generalization concerning the role of a phi-features in the overtness of the definite article cannot be extended to bare plurals, which clearly are specified for at least one phi-feature -- number. Secondly, there are non-neuter mass nouns, which are nonetheless bare (more on this below). Thirdly, the cross-linguistically diverging behavior of plurals and mass nouns on the one hand and proper names on the other also suggests that the lack of the definite article with kind-denotation should not be attributed to the mechanism deriving its absence with proper names. And finally, further evidence for the same conclusion comes from the fact that modification of kind-denoting plurals and mass nouns, unlike modification of proper names, does not give rise to the obligatory definite article.

The second set of candidates for common nouns not specified for phi-features are profession nouns, such as *doctor* or *teacher*, which, at least in the plural, are not restricted to male individuals (see Percus 2011 and Merchant 2014 for a discussion). However, they have to be specified for formal gender, as [masculine] (as opposed to neuter), which explains why they do not pattern with proper names.

This looks like a clear impasse: while there don't seem to be any common nouns that pattern together with proper names in selecting the null allomorph of the definite article, this could be explained away by the assumption that German common count nouns are all specified for gender. If so, the null allomorph of the definite article can

in fact be treated as the elsewhere case, even though no independent evidence can be provided either for this hypothesis or against it.[8]

3.3 Intermediate conclusion and possible alternative

An examination of the distribution of the definite article with German proper names leads us to the conclusion that it is intimately connected to phi-feature specification: all and only proper names that are specified for formal gender or number appear with an overt definite article. Two alternative ways of accounting for this generalization have been examined: an operational one, where D° is not realized as a separate lexical item due to some syntactic or morphological operation that is blocked by the presence of phi-features, and a realizational one, where the phonologically null allomorph of the definite article is used as the elsewhere case.

While the N°-to-D° movement approach and the null allomorph approach require further assumptions to deal with the fact that modification requires an overt definite article, Morphological Merger (Marantz 1988), Local Dislocation (Embick and Noyer 1999, 2001) or m-merger (Matushansky 2006) rely on a stricter notion of adjacency (which is disrupted by modification) and therefore do not face this problem.

Crucially, a noun may have no gender specification yet give rise to agreement for a specific gender (e.g., proper names in German may trigger neuter agreement when they are formally neuter or when they are unspecified for gender; honorary NPs in Romance trigger masculine agreement, etc.). Assuming that certain (lexical-semantic classes of) proper names (city names, most country names, etc.) are not specified for formal gender, they are correctly predicted to be bare. Conversely, proper names that are specified for a gender feature, either unpredictably (*der Rhein*) or because they are compounds with a meaningful head (e.g., *das Erz**gebirge*** 'the Ore Mountains'), must be introduced by a definite article: either because phi-features act as interveners (in operational approaches) or because the zero allomorph is the elsewhere variant (in the realizational approach).

To discuss the alternative approach to these facts (Moltmann 2013) proposing that non-bare proper names contain a quotation introduced by a syntactically explicit null sortal (i.e., a common noun), it is necessary to first examine relativization of various proper names.

4. German relativization patterns

As illustrated below, relative clauses in German are formed either with d-pronouns (which are homophonous with demonstratives, see Wiltschko 1998) or, when they are free relatives, with wh-words (Müller 1999):

(19) a. der Mann, der Maria küßt — Müller 1999
the man who Maria kisses
the man who is kissing Maria

b. Wer schläft, sündigt nicht.
who sleeps sins not
He who sleeps does not sin.

[8] The issue of bare plurals and mass nouns also arises for the operational accounts discussed in section 3.1, with the same outcome. Yet another case where the expected definite article is absent, yielding a bare NP, is that of bare singulars discussed by Stvan 1998, 2007, 2009, Borthen 2003, De Swart and Zwarts 2009, Zwarts 2009, among many others. We set these aside as well.

However, as shown by Moltmann's examples (11)-(12), predicates, honorary NPs and kind-denoting mass nouns occur with the inanimate w-relativizer. The hypothesis that bare country and city names, which require the w-relativizer (20) as well, are not specified for phi-features provides us with the natural way of unifying these cases.[9]

(20) a. München, was/*das ich sehr gut kenne Moltmann 2013
Munich REL.W/REL.NSG I very well know
Munich, which I know very well

b. Ich liebe Italien, was/*das dir ja auch gut gefällt.
I love Italy REL.W/REL.NSG you.DAT PRT also good pleases
I love Italy, which pleases you too.

Indeed, if d-pronouns consist of a bound D morpheme and agreement morphemes, as proposed by Wiltschko 1998, then d-relativization is dependent upon the presence of phi-features at the DP level: if phi-features are absent (which we argued to be the case for bare country and city names, and which is obvious for honorary NPs as well as for simplex pronouns illustrated in (12d)), d-relativizers cannot be used. If, on the other hand, a common noun is endowed with a phi-feature, the w-relativizer becomes impossible. Relativization of non-neuter mass nouns confirms this intuition:

(21) a. Bronze, die/*was lebenswichtig ist,
bronze.F REL.FSG/REL.W vital is
bronze, which is of vital importance

b. Schwerfel, der/*was lebenswichtig ist,
sulfur.M REL.MSG/REL.W vital is
sulfur, which is of vital importance

A potential problem for such a direct link between the presence of phi-features on a DP and the choice of the relativizer comes from the fact that the match between the lack of an article and the w-relativizer is imperfect. Anarthrous names of palaces (4), churches and animate beings ((22), from Moltmann 2013) require a d-pronoun:[10]

(22) Fritzchen, den/*das/*was ich so lange nicht gesehen habe
Fritzchen.N REL.MSG/REL.NSG/REL.W I so long NEG seen have
Fritzchen, whom I have not seen in such a long time

By our hypothesis, such proper names must be specified for some phi-feature that forces the use of the d-series. Gender and number are clearly excluded, because they would, by our prior generalization, require an overt definite article. However, German also marks animacy, which distinguishes animate free relatives with *wer* (19b) from their inanimate counterparts with *was*. At first blush, the fact that w-relativizers are distinguished by animacy seems to suggest that it cannot be the feature leading to the use of the d-series. However, it is necessary to separate here animacy as a semantic

[9] For some of my informants, the neuter relative pronoun *das* 'which' is possible, or even required with bare country and city names. See below for a discussion of this pattern with names of palaces, churches and animate individuals.

[10] The masculine gender is most likely due to semantic agreement (Corbett 2006), for other speakers I have consulted and/or in other syntactic environments the neuter form *das* is also an option.

feature (fixed by the denotation of the free relative and, I hypothesize, determining the choice between *wer* and *was*) and animacy as a formal feature (specified in the lexicon and active for syntactic processes). If proper names of animate entities are [+animate], whereas names of palaces and churches are specified as [-animate], their formal feature specification will not affect the use of an overt definite article, yet can be argued to trigger the use of d-relativizers.

The hypothesis that w-relativizers are used when no phi-features are specified is still not enough to account for their distribution. While with honorary NPs this lack of phi-features is independently motivated, for predicates, as in (12b), such a conclusion is not obvious: the word *Sekretärin* 'secretary' is obviously and transparently specified for (feminine) gender. An additional structural hypothesis is necessary, as suggested by the following example from French, appositive relatives with the w-relativizer in German may turn out to not syntactically relativize the constituent they appear to:

(23) a. Marcelle est très fatiguée, ce que Marie n' est pas. De Vries 2006
Marcelle is very tired DEM REL Marie NEG is not
Marcelle is very tired, which Marie is not.

b. Marcelle est arrivée en retard, ce qu' elle ne fait jamais.
Marcelle is arrived in delay DEM REL she NEG does never
Marcelle arrived late, (something) which she never does.

The demonstrative clearly lacks formal gender (or number), which its antecedent does not supply pragmatically either: e.g., the property of being a secretary in (12b) or of being tired in (23a) has no gender. Conversely, the fact that *was* is specified as inanimate, is derivable from the denotation of the demonstrative and does not require it to be formally specified for animacy.

Finally, the hypothesis that the availability of the d-relativizer depends on by the presence of phi-features also provides a natural explanation for why modified proper names require a d-pronoun (Moltmann 2013), irrespective of whether the modifier (triggering the insertion of the definite article) is restrictive or non-restrictive:

(24) a. das Berlin der 20iger Jahre, das/*was ich gut kenne
the.NSG Berlin of.the 20.ADJ years REL.NSG/REL.W I well know
the Berlin of the Twenties, which I do not know well

b. das schöne München, das/*was ich gut kenne
the.NSG beautiful.NSG Munich REL.NSG/REL.W I well know
the beautiful Munich, which I know well

Continuing with the assumption that a d-pronoun is only possible in the presence of phi-features we have to conclude that the modified proper names in (24), unlike their unmodified counterparts, bear phi-features: not only is the determiner marked as [neuter], but the entire DP is syntactically [neuter] as well. More specifically, it forces us to adopt a dynamic approach to phi-feature specification: even though the proper name is devoid of phi-features, the DP that contains it is not -- and moreover, it seems that it is the presence of an overt determiner that gives rise to this effect.

The hypothesis that the featural specification of a DP is computed derivationally is unavoidable: coordinate DPs, such as *the king and I*, are plural in the absence of any internal component bearing the feature [plural], while imposters (*the author*) and camouflage DPs (*Your Majesty*) can trigger first-person and second-person agreement

respectively (see Collins and Postal 2012 and Corbett 2006 on semantic agreement).[11] It is moreover supported by the intuition that phi-features are structurally represented more than once inside the NP (cf. Steriopolo and Wiltschko 2010).

I propose to extend this dynamic approach to phi-feature valuation by adopting a further intermediate step: when a phi-feature bundle (for instance, on D°) probes for gender and does not find a gender value on its goal, agreement failure (cf. Preminger 2011) results in the assignment of default values (e.g., [neuter] with inanimate NPs) rather than just in the default realization. As a result, the definite article appearing with genderless proper names would be specified as [neuter], yielding the d-series.

Moltmann proposes to account for different classes of German proper names in terms of sortals: the overtly definite proper names consist of a mention (quotation) combined with a sortal (e.g., *der Fujiyama* 'the Fuji' contains a phonologically null but syntactically present noun 'mountain'). In names of people (in standard German), churches and palaces, on the other hand, the sortal is implicit in the meaning of the proper name (something akin to *person* for humans, unspecified otherwise). The presence of a sortal results in the d-series, but the article appears only if the sortal is projected syntactically. As a result, bare toponyms take the w-series like mass nouns, predicates, honorary NPs, etc., which are also assumed to lack the sortal altogether.

Two empirical arguments can be raised against this proposal. On the one hand, it cannot be extended to names of planets or rivers, for which no obvious sortals can be proposed that would distinguish feminine proper names from masculine ones. On the other hand, Moltmann's proposal does not explain why modification, as in (24), while most likely not introducing a syntactically explicit sortal, requires both the definite article and the use of the d-series. Finally, it leaves unexplained the link between non-default gender and the obligatory definite article.

We conclude therefore that a gender-based approach is preferable. Even though it requires further refinements in the existing accounts of bare proper names, the choice between an overt definite article and its absence has not been investigated previously in enough detail to render such refinements stipulative or unexpected.

5. Conclusion

Having shown that the appearance of an overt definite article with German proper names depends on their formal specification for number and/or gender, I argued that the existing approaches to bare proper names fall short of a comprehensive account of this generalization and proposed some minor modifications to enable them to do so. I then examined the correlation between the phi-feature specification of proper names and the choice of the relative pronoun, arguing that here as well formal specification plays a role, albeit at the DP level. I therefore suggested that the facts uncovered lead us towards a dynamic approach to NP-internal phi-feature specification.

References

Alderete, John. 1998. Canonical types and noun phrase configurations in Fijian. In *Recent Papers in Austronesian Linguistics: Proceedings of AFLA III and IV*, ed. by Matt Pearson, 19-44. Los Angeles: University of California.

Baker, Mark C. 2003. *Lexical Categories: Verbs, Nouns, and Adjectives*. Cambridge: Cambridge University Press.

[11] See Sauerland 2004 for the hypothesis that a DP is the complement of the functional head φ, which hosts its interpretable phi-features, computed from its denotation rather than formal phi-feature values.

Borthen, Kaja. 2003. Norwegian Bare Singulars, Doctoral dissertation, Norwegian University of Science and Technology.

Bošković, Željko. 2005. On the locality of left branch extraction and the structure of NP. *Studia Linguistica* 59:1-45.

Bowers, John. 1991. The syntax and semantics of nominals. In *Proceedings from Semantics and Linguistic Theory I*, ed. by Steven Moore and Adam Zachary Wyner, 1-30. Ithaca, New York: CLC Publications, Department of Linguistics, Cornell University.

Chierchia, Gennaro. 1998. Plurality of mass nouns and the notion of "semantic parameter". In *Events and Grammar*, ed. by S. Rothstein, 53-103. Dordrecht: Kluwer.

Collins, Chris, and Paul M. Postal. 2012. *Imposters: A Study of Pronominal Agreement*. Cambridge, Massachusetts: MIT Press.

Corbett, Greville G. 2006. *Agreement*. Cambridge: Cambridge University Press.

Corver, Norbert. 1992. Left branch extraction. In *Proceedings of NELS 22*, ed. by Kimberley Broderick, 67-84. Amherst, Massachusetts: University of Massachusetts, GLSA.

De Clercq, Karen 2008. Proper names used as common nouns in Belgian Dutch and German. In *Linguistics in the Netherlands*, vol. 25, ed. by Bert Botma and Marjo van Koppen, 63-74. Amsterdam: John Benjamins.

De Swart, Henriette, and Joost Zwarts. 2009. Less form -- more meaning: why bare singular nouns are special. *Lingua* 119:280-295.

De Vries, Mark. 2006. The syntax of appositive relativization: on specifying coordination, false free relatives, and promotion. *Linguistic Inquiry* 37:229-270.

Embick, David, and Rolf Noyer. 1999. Locality in post-syntactic operations. In *Papers in Morphology and Syntax*, ed. by Vivian Lin, Cornelia Krause, Benjamin Bruening and Karlos Arregi. *MIT Working Papers in Linguistics 34*, 265-317. Cambridge, Massachusetts: MIT, Department of Linguistics and Philosophy, MITWPL.

Embick, David, and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32:555-598.

Gary-Prieur, Marie-Noëlle. 1994. *Grammaire du nom propre*. Paris: Le Seuil.

Ghomeshi, Jila, and Diane Massam. 2009. The proper D connection. In *Determiners*, ed. by Jila Ghomeshi, Ileana Paul and Martina Wiltschko, 67-95. Amsterdam: John Benjamins.

Gili, Joan. 1967. *Introductory Catalan Grammar, 3rd edition*. Oxford: Dolphin.

Heim, Irene. 2008. Features on bound pronouns. In *Phi Theory: Phi-Features across Modules and Interfaces*, ed. by Daniel Harbour, David Adger and Susana Bejar, 35-56. Oxford: Oxford University Press.

Longobardi, Giuseppe. 1994. Reference and proper names. *Linguistic Inquiry* 25:609-665.

Marantz, Alec. 1988. Clitics, Morphological Merger, and the mapping to phonological structure. In *Theoretical Morphology*, ed. by Michael Hammond and Michael Noonan, 253-270. San Diego: Academic Press.

Matushansky, Ora. 2006. Head-movement in linguistic theory. *Linguistic Inquiry* 37:69-109.

Matushansky, Ora. 2008. On the linguistic complexity of proper names. *Linguistics and Philosophy* 31:573-627.

Merchant, Jason. 2014. Gender mismatches under nominal ellipsis. *Lingua* 151, Part A:9-32.

Meyer-Lübke, Wilhelm. 1890. *Grammaire des langues romanes*, vol. III: Syntaxe.

Moltmann, Friederike. 2013. Names, sortals, and the mass-count distinction. Ms., Université Paris I.
Müller, Stefan. 1999. An HPSG-analysis for free relative clauses in German. *Grammars* 2:53-105.
Percus, Orin. 2011. Gender features and interpretation: a case study. *Morphology* 21:167-196.
Pereltsvaig, Asya. 2007. On the universality of DP: a view from Russian. *Studia Linguistica* 61:59-94.
Picallo, M. Carme. 1991. Nominals and nominalizations in Catalan. *Probus* 3:279-316.
Picallo, M. Carme. 2005. Some notes on the grammatical gender and *l*-pronouns. *Universität Konstanz Fachbereich Sprachwissenschaft, Arbeitspapier* 19:107-121.
Poplack, Shana, Alicia Pousada, and David Sankoff. 1982. Competing influences on gender assignment: variable process, stable outcome. *Lingua* 57:1-28.
Preminger, Omer. 2011. Agreement As a Fallible Operation, Doctoral dissertation, MIT.
Rabern, Brian. 2015. Descriptions which have grown capital letters. *Mind and Language* 30:292-319.
Renzi, Lorenzo. 1997. The structure of the noun phrase. In *The Dialects of Italy*, ed. by Martin Maiden and M. Mair Parry, 162-170. London: Routledge.
Ritter, Elisabeth. 1991. Two functional categories in noun phrases: Evidence from Modern Hebrew. In *Perspectives on Phrase Structure*. *Syntax and Semantics*, 37-62. New York: Academic Press.
Ritter, Elisabeth. 1993. Where's gender? *Linguistic Inquiry* 24:795-803.
Sauerland, Uli. 2003. A new semantics for number. In *Proceedings of Semantics and Linguistic Theory (SALT) 13*, ed. by Robert B. Young and Yuping Zhou. Ithaca, New York: CLC publications, Department of Linguistics, Cornell University.
Sauerland, Uli. 2004. A comprehensive semantics for agreement. Ms., ZAS, Berlin.
Seiter, William, J. 1980. *Studies in Niuean Syntax*. New York: Garland.
Steriopolo, Olga, and Martina Wiltschko. 2010. Distributed GENDER hypothesis. In *Formal Studies in Slavic Linguistics. Proceedings of Formal Description of Slavic Languages 7.5*, ed. by Gerhild Zybatow, Philip Dudchuk, Serge Minor and Ekaterina Pshehotskaya. *Linguistik International 25*, 155-172. Frankfurt: Peter Lang.
Stvan, Laurel Smith. 1998. The Semantics and Pragmatics of Bare Singular Noun Phrases, Doctoral dissertation, Northwestern University.
Stvan, Laurel Smith. 2007. The functional range of bare singular count nouns in English. In *Denominal Determination: Typology, Context Constraints, and Historical Emergence*, ed. by Elisabeth Stark, Elisabeth Leiss and Werner Abraham, 171-187. Amsterdam: John Benjamins.
Stvan, Laurel Smith. 2009. Semantic incorporation as an account for some bare singular count noun uses in English. *Lingua* 119:314-333.
van Langendonck, Willy. 2007. *Theory and Typology of Proper Names*. Berlin: Mouton de Gruyter.
Wiltschko, Martina. 1998. On the syntax and semantics of (relative) pronouns and determiners. *Journal of Comparative Germanic Linguistics* 2:143-181.
Zwarts, Joost. 2009. Bare singular nominals in Dutch: a descriptive overview. Ms., Utrecht University.