

Gender agreement with animate nouns in French*

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Grammatical gender and semantic gender do not always go hand in hand. In French such mismatches can be observed outside the strict DP. To account for such phenomena and for gender more generally, we propose that gender is expressed in two positions within DP, on N as an uninterpretable feature accounting for grammatical gender and on the head of a Gender Phrase as a feature accounting for semantic gender. To account for the mismatches we discuss, we propose that the gender of the nouns involved is unspecified inside DP and that it can be specified in D later in the derivation.

We further show that inside the strict DP, grammatical gender agreement between Gen and NP is stricter than in the ‘looser’ DP (partitive) which is in turn stricter than the agreeing/referring relation with elements outside DP, reflecting Corbett’s agreement hierarchy, to which we add a *partitive* position.

1. Introduction

French exhibits challenging gender phenomena with animate nouns such as *fille* “girl”, *garçon* “boy”, *professeur* “professor” etc.: in some contexts, gender can be, must be, or cannot be overridden, as illustrated in (1), (2) and (3), respectively.^{1,2}

- (1) a. *Le plus jeune / La plus jeune de mes gentils*
the.MASC more young/ the.FEM more young of my nice
enfants s’ appelle Nina.
children REFL is.called Nina
“The name of the youngest of my nice children is Nina.”
- b. *De tous mes professeurs, seul le plus jeune /*
of all.MASC my.MASC professors only.MASC the.MASC more young/
seule la plus jeune - Mme Dupont - parle bien l’anglais.
only.FEM the.FEM more young - Mme Dupont - speaks well the English
“Of all my professors, only the youngest one – Mme Dupont – speaks English well.”
- (2) *Mon ancien professeur de français était toujours*
my.MASC former.MASC professor of French was always
contente de mon travail. Elle vient de partir à la retraite.
satisfied.FEM of my work she just of leave in the retirement
“My former French teacher was always satisfied with my work. She just retired.”

- (3) a. *La sentinelle arriva. Elle/*Il avait une longue barbe.*
 the.FEM sentinel arrived she/he had a long beard
 “The sentinel arrived. He had a long beard.”
- b. *J’ai vu un léopard. Il/*Elle allaitait ses petits.*
 I have seen a.MASC leopard he/she was.nursing his/her young
 “I saw a leopard. She was nursing her young.”

In (1), both the masculine (*seul*) *le plus jeune* “(only) the youngest one” and the feminine (*seule*) *la plus jeune* are possible with *enfant* “child” and *professeur* “professor”. This is puzzling because both nouns are masculine, as shown by the agreement on *gentils* “nice” and *ancien* “former” respectively, even though they refer to a female. (2) differs from (1) in that the predicative adjective *contente* “satisfied.FEM” is feminine even though it corresponds to the masculine noun *professeur* (but see note 1). In addition to the agreement facts just described, the gender phenomena that interest us in this paper concern reference: in the second part of (2), if the referent is a woman, a feminine pronoun has to be used to refer to the masculine noun *professeur*. In (3), in contrast, the feminine pronoun *elle* “she” must be used to refer to the noun *sentinelle* “sentinel”, which is grammatically feminine but refers to a man.

These facts need be explained, especially since, in French, pronouns usually have the same gender as the nouns they replace (4), attributive adjectives agree in gender with the noun they modify (5), and predicative adjectives agree with the subject of the sentence (6).

- (4) a. *Une belle fille est arrivée. Elle (*Il) s’est assise (*assis) au bar.*
 a.FEM pretty girl is arrived she (he) REFL is seated.FEM (seated.MASC) at.the bar
 “A pretty girl arrived. She sat down at the bar.”
- b. *Un grand garçon est arrivé. Il (*Elle) s’est assis (*assise) au bar.*
 a.MASC tall boy is arrived he (she) REFL is seated.MASC (seated.FEM) at.the bar
 “A tall boy arrived. He sat down at the bar.”
- (5) a. *La plus intelligente (*Le plus intelligent) des filles vient d’arriver.*
 the most intelligent.FEM (the most intelligent.MASC) of.the girls just arrived
- b. *Le plus intelligent (*La plus intelligente) des garçons vient d’arriver.*
 the most intelligent.MASC (the most intelligent.FEM) of.the boys just arrived
- (6) a. *La belle fille est intelligente (*intelligent).*
 the pretty girl is intelligent.FEM (intelligent.MASC)
- b. *Le grand garçon est intelligent (*intelligente).*
 the tall boy is intelligent.MASC (intelligent.FEM)

(4) shows that only a feminine pronoun, *elle* “she”, can refer to the feminine noun *fille* “girl” and that only a masculine pronoun, *il* “he”, can replace the masculine noun *garçon* “boy”. In

(5), we can see that the adjectives *intelligente* “intelligent.FEM” and *intelligent* “intelligent.MASC” must have the same gender as *filles* “girls” and *garçons* “boys”, respectively. This is also the case in (6).

Our goal in this paper is to account for the facts in (1)–(3), to explain the contrast between such examples and the ones in (4)–(6), and more generally to provide an analysis of gender which extends to all nominals, including inanimate ones. This implies focussing on the nouns involved (*enfant* “child” vs. *fille/garçon* “girl/boy”) but also on the structures/contexts which allow the gender phenomena we are investigating.

Theoretical issues have to be dealt with as well. It must be determined whether gender is represented in the syntax of nominals or not. If it is, the question as to what its nature is and where it is located needs to be answered. Those questions have been widely debated in the literature in recent years. Some linguists associate gender with a specific projection like Gender Phrase (as proposed by Picallo 1991), whereas others do not (such as Ritter 1993).³ For some, gender is rather uniform, whereas for others different aspects should be distinguished, such as morphological/grammatical gender and semantic/natural gender, i.e. sex. This of course depends on several factors, like the language examined or the theoretical framework adopted. In a Minimalist approach, for example, whether a gender feature is interpretable or not, and valued or not will have to be determined.

To solve the puzzles presented above, we develop an analysis in which grammatical and semantic/natural gender are distinguished, as they may interfere or conflict (cf. Atkinson, to appear, following Kramer 2009), and in which the semantic gender of some nouns (like *enfant* “child” and *professeur* “professor” in (1) and (2)) receives a feature specification through semantic reference later in the derivation.

The paper is organized as follows. In section 2, we describe the French gender paradigm and mention the different noun classes found in that language. Section 3 reports two accounts on which we will build our own analysis (Kramer’s 2009 for Amharic and Atkinson’s, to appear, for French). In section 4, we make our theoretical assumptions explicit, present our analysis for the gender mismatches we examine and propose an account for gender that extends to all the classes of nouns identified in section 2. Section 5 concludes the paper.

2. The French paradigm

In Romance languages, both inanimate and animate nouns have gender distinctions, namely masculine and feminine. This includes French, on which this paper focuses. However, when it comes to gender, French inanimate and animate nouns have non-uniform characteristics. The gender of the former is completely arbitrary: *le mot*, for instance, is masculine whereas *la parole* is feminine, although both can mean “the word”. The facts are more complex for animate nouns, as their grammatical gender and their semantic gender do not always match. For instance, the noun *sentinelle* “sentinel” is feminine although it usually refers to a man.

As animacy is a crucial property of the nouns involved in the challenging examples presented in the introduction, this subsection concentrates on nouns with this feature. However, not all animates can be treated in the same way: *enfant* “child” and *professeur* “professor”, for example, do not necessarily trigger grammatical agreement, at least not in contexts like (1), whereas *fille* “girl” and *garçon* “boy” in (5)–(6) do. In addition, nouns like *fille/garçon* and the pronoun replacing them must have the same gender, as in (4), whereas a word like *professeur* and the pronoun replacing it cannot share their gender feature in examples like (2). Those facts suggest that animate nouns in French belong to different categories, which can be described as follows:

- a) *Suppletive forms*: Nouns with unrelated morphological forms, used to refer to males and females. For such nouns, sex and gender conflate: *une fille* “a girl” is feminine and female and *un garçon* “a boy” is masculine and male; the same holds for *une jument* “a mare” vs. *un étalon* “a stallion”.
- b) *Stem change*: Sex differences are expressed by related forms, viz. stems with an alternating suffix. Sex and gender are not differentiated: *le directeur* “the director (masc.)” is masculine and male and *la directrice* (fem.) feminine and female; the same holds for *un chat* “a cat (masc.)” vs. *une chatte* “a cat (fem.)”.
- c) *Fixed forms with article change*: Nouns which have the same form in the masculine and in the feminine. Gender/sex differences are expressed solely by alternating determiners: *un/une enfant* “a child (masc./fem.)”, *un/une secrétaire* “a secretary (masc./fem.)”. This class includes nouns that were originally masculine and are used to designate

professions: *un/une professeur* “a professor, teacher (masc./fem.)”; *un/une mannequin* “a fashion model (masc./fem.)”.⁴

- d) *Forms with a fixed article*: Nouns with a fixed gender used to refer to both sexes. Their forms do not alternate in the feminine and in the masculine, and there is no article change: *la sentinelle* “the sentinel”, with a feminine determiner, can refer to both men and women. Gender and sex may differ. The same holds for feminine nouns like *la personne* “the person” or *la victime* “the victim”. Another example would be the masculine form *un léopard*, which can refer to male and female leopards.
- e) *Default masculine forms*: Some nouns classified under b) and c) have a default use of the masculine form. This means that masculine forms are used to refer to both males and females: *le chat*, *un enfant*, *le professeur*, and *le mannequin*. For expository reasons, we group these nouns in an independent class.

The above classification sheds a new light on the examples discussed in the introduction. First, we realize that in French both grammatical and semantic gender play a role. Second, we can observe that the nouns that give rise to the gender mismatches in (1) (*enfant* “child” and *professeur* “professor”) have default masculine forms, thus representing our class e). Put differently, gender sharing outside the strict DP necessary takes place with the nouns of class a), b), c), and d), but not with those of class e) (cf. (3) for class d), and (4)-(6) for class a)).

The differences among the animate nouns described in this section have to be accounted for by a theory of gender. Whether current work on agreement in French achieves this or not will be discussed in the next section.

3. Previous analyses

As both grammatical gender and semantic gender have to be considered to explain the French data, we limit our presentation of previous works on gender to two recent papers that make a distinction between the two, namely Kramer’s (2009) and Atkinson’s (to appear). Only

Atkinson's paper deals with gender in French, but since it builds on Kramer's work, we will also discuss Kramer (2009).

3.1 Kramer (2009)

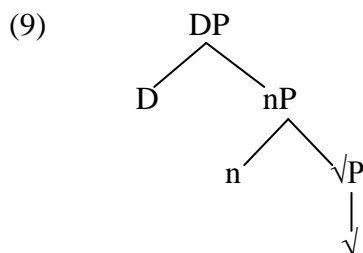
Kramer studies the DP in Amharic, a language with two genders, masculine and feminine, indicated by agreement on, e.g., the definite marker (*-u*: "the.MASC.SG." and *-wa* "the.FEM.SG."), and in which inanimate nouns are generally masculine. The Amharic system for assigning gender to animate nouns relies heavily on natural gender, i.e. sex. If the natural gender of the referent is unknown, the nominal is masculine. This means that masculine is the default, except with certain animals that are feminine if their gender is unknown/irrelevant (Leslau 1995):

- (7) a. *ayt'-wa*
mouse-DEF.FEM.
"the mouse"
- b. *bäk'lo-wa*
mule-DEF.FEM.
"the mule"

If the natural gender of the referent for one of these animal nouns is known, natural gender overrides grammatical gender. This also holds for the default masculine nouns.

- (8) *ayt'-u*
mouse-DEF.MASC.
"the male mouse"

In order to capture the Amharic facts, Kramer proposes, in a Distributed Morphology approach, that both the root and *n* can have a gender feature: an uninterpretable feature on the root that represents grammatical gender and an interpretable feature on *n* that encodes natural gender. The latter comes in three flavours, [+fem], [-fem] or unspecified. The split analysis advocated can be represented as in (9):



This system allows Kramer (2009: 130–132) to account for examples like (7) and (8) in the following way. Animate feminine roots like “mouse” in (7) are [+fem], whereas masculine roots do not need a gender feature, masculine being the default. When the sex of the referent is unknown/irrelevant as in (7), *n* is unspecified, whereas when it is known, it can be [+fem] or [–fem] as in (8). Inanimate roots have an unspecified *n*. Masculine inanimate nouns do not have a gender feature on the root, masculine being the default, feminine inanimate nouns have a [+fem] feature on the root. As a consequence, it is the highest feature in the tree which is involved in agreement processes, with D, for instance. This means that when a noun is specified for sex with a feature [+/-fem] on *n*, it is this gender which is the agreeing element. Otherwise, when *n* lacks gender, the agreeing gender is the grammatical gender.

This searching process, e.g. by D, down the tree, can be captured by an Agree operation from a Minimalist perspective. In the standard versions of Agree (Chomsky 2000, 2001) uninterpretable features must be valued (or checked) and then deleted. This process has to take place before the derivation is sent to Logical Form (LF), otherwise the derivation crashes. Valuation (checking) takes place via Agree.

However, Kramer observes that the mechanism proposed by Chomsky is problematic if it is to account for the Amharic facts. One reason is that this system implies that an uninterpretable feature is unvalued. This is because unvalued and uninterpretable features are collapsed in such a way that Agree leads to the valuation of an unvalued feature, and to the deletion of an uninterpretable one. But in Amharic, the gender of some feminine nouns (with a [+fem] feature on the root) is clearly uninterpretable *and* valued, suggesting that uninterpretability and lack of valuation do not necessarily go hand in hand. A second problem with the standard assumptions of the Minimalist framework is that it assumes that an uninterpretable feature must be checked by its interpretable counterpart. However, the grammatical gender feature, which is uninterpretable, does not always co-occur with an interpretable semantic gender feature, as seen in the above discussion of Amharic. This is the case, for example, of inanimates, which lack sex features, and which therefore have an uninterpretable feature that should cause the derivation to crash, and also of animate nouns with only an (uninterpretable) feature on the root but no feature on *n*, such as the default forms of the nouns in (7).

To solve these problems Kramer adopts Pesetsky & Torrego’s (2007) (henceforth P&T) version of Agree, in which both interpretable and uninterpretable features can be either valued

or unvalued. This is possible because the arbitrary relationship between unvaluation and uninterpretability is eliminated in this approach. As a result, the valued uninterpretable gender feature on the root assumed by Kramer for Amharic is no longer offending. Furthermore, to acknowledge the existence of uninterpretable features with no interpretable counterpart, Kramer draws on Legate (2002), as in her system, “unvalued features are what must be dealt with via Agree before the derivation is sent to the interfaces, and uninterpretable features can simply be deleted in a global fashion on the way to the semantic component” (2009:143).

The aspects of P&T and Legate adopted by Kramer allow her to account for the Amharic gender facts. Nevertheless, there are some conceptual and empirical problems with Kramer’s analysis. First, the structures of inanimate feminine nouns and of feminine nouns for which sex is unknown/irrelevant are identical, gender being only specified on the root. The same holds for inanimate masculine nouns and masculine nouns for which sex is unknown/irrelevant. This is counterintuitive, because animacy and semantic gender go together. In other words, the referents of animate nouns are specified for sex, in contrast to inanimates. This difference should thus be represented in an analysis which distinguishes between semantic and grammatical gender. Furthermore, in Kramer’s analysis, the gender of the default feminine noun can be overridden by a male or female feature on *n* and genderless roots can be inserted under a [+fem] or [-fem] *n*. The feature on *n* is inherited by D. For the French nouns allowing gender mismatches this analysis cannot be adopted, because these nouns do not change from a class e) noun, i.e. default masculine, into a class c) noun, i.e. the *le/la professeur* class, as the Amharic animal nouns with a feminine default gender seem to do. In the French gender mismatch cases, the whole DP expresses default grammatical gender agreement. Therefore, while for Kramer it is always the highest gender feature that determines agreement, in our French examples both semantic and grammatical gender may play a role in agreement. Finally, the absence of a gender feature on masculine roots is problematic for languages like French, where masculine is not the default for inanimate nouns. This issue has been taken up by Atkinson (to appear) whose analysis of French nouns is reported in the next subsection.

3.2 Atkinson (to appear)

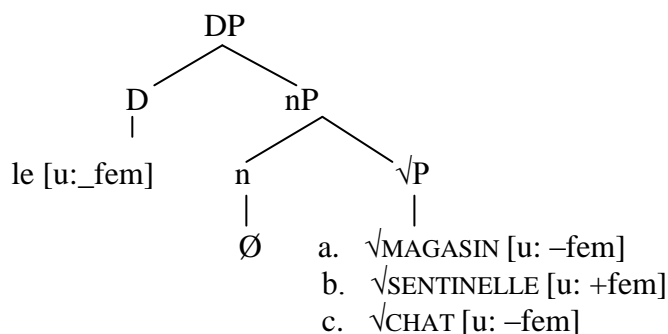
Atkinson builds on Kramer's (2009) work and tries to account for agreement in the French DP. Just like Kramer for Amharic, she assumes that gender in French should be expressed in two positions:

- (i) on the root as an uninterpretable feature accounting for grammatical gender
- (ii) on the head of nP as an interpretable feature accounting for semantic gender

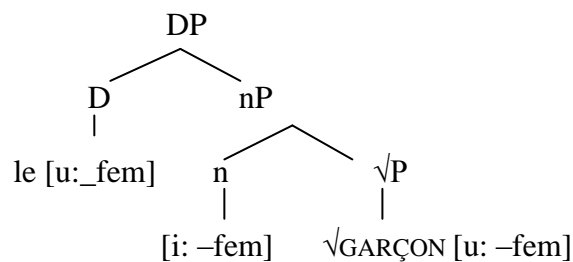
Let us see if (i) and (ii) allow Atkinson to account for the characteristics of the French animate noun classes listed in section 2. In her analysis, (i) holds for inanimate nouns and for the animates in our class d), that is, nouns like *la sentinelle* (fem.) “the sentinel”. This means that for Atkinson a root cannot only be [+fem], but also [–fem] (see (10) below), an option not available in Kramer's analysis. The reason for this assumption is that in French, masculine is not the default for inanimates, which contrasts with Amharic. Postulating that French roots can be [+/–fem] addresses the empirical problem mentioned at the end of the previous section. As for our class e) nouns, it is the default masculine on the root that determines agreement (grammatical gender). (ii) applies to our noun classes a) (suppletive forms), b) (stem change by means of alternating suffixes) and c) (article change), i.e. to nouns like *la fille* “the girl”, *la chatte* (fem.) “the female cat”, *une enfant* (fem.) “a female child” respectively.

The structures corresponding to Atkinson's proposals, before valuation of the feature on D, are provided in (10) and (11):

- (10) a. Inanimates: *le magasin* “the store” (masc.)
 b. Class d): *la sentinelle* “the sentinel”
 c. Class e): *le chat* “the cat”



- (11) Classes a), b), c): *le garçon* “the boy” (masc.); *le chat* “the male cat”; *le secrétaire* “the male secretary”



The crucial difference between (10) and (11) is that the latter contains a sex feature on *n*, in contrast to the former. This account, however, raises conceptual problems similar to the ones evoked for Kramer’s work (see section 3.1): it implies that some animate nouns (our classes d) (*la sentinelle*) and e) (default masculine nouns)) have the same structure as inanimates and that some animates do not encode sex. Furthermore, Atkinson’s analysis seems to be limited to local agreement within the strict DP (cf. section 4.2). Yet, we have shown in the introduction to this paper that gender agreement outside the strict DP can differ from agreement inside the strict DP. Atkinson’s analysis does not seem to extend to such cases. These issues are addressed in the next section.

4. Analysis

4.1 Theoretical assumptions

Following Harris (1991:36), we assume that grammatical gender of inanimates is purely a formal, grammatical feature and in the terminology of Chomsky (2000) that it is uninterpretable (cf. Zamparelli 2008). We further assume that DP-internal Agree relations value concord (Carstens 2000).

To account for the fact that in Romance languages, and in French in particular, grammatical gender does not always correspond to semantic gender for animate nouns, we build on Kramer’s (2009) and Atkinson’s (to appear) works, presented in section 3. *La sentinelle* (fem.) “the sentinel” and *la victime* (fem.) “the victim”, which can both refer to men and women, illustrate this characteristic. This means that we adopt an analysis where gender is not expressed in a single position within DP (e.g. on the root as in Alexiadou 2004 or on *n* as in Lowenstamm 2008) but in two positions. As we do not explicitly adopt a Distributed

Morphology analysis for our data, we will assume that these heads are N and Gen, the head of a Gender Phrase (GenP) (cf. Picallo 1991). These labels differ from the ones in Kramer (2009) and Atkinson (to appear) in that NP replaces the root and GenP the nP. Although nothing hinges on the choice of these categories, we believe that postulating a GenP is justified as it encodes semantic gender, i.e. an interpretable feature (*une chatte* (fem.) “a female cat”; *une enfant* (fem.) “a female child”). NP, in contrast, encodes grammatical gender, which is uninterpretable (*le magasin* (masc.) “the shop”).

Our analysis also subsumes some aspects of Agree proposed in Pesetsky & Torrego (2007), and some in Legate (2002) discussed in section 3. In a nutshell, following P&T we assume that valuation and interpretability are treated independently, in the sense that an uninterpretable feature is not necessarily unvalued. This contrasts with Chomsky’s (2000, 2001) conception of Agree as it means that both interpretable and uninterpretable features can be valued or unvalued. As a consequence, P&T’s version of Agree is a mechanism by which a probe with unvalued features searches down the tree for a matching valued feature (as in Chomsky 2001) but which does not require the goal to have an interpretable feature. This is important for our analysis as the grammatical gender feature in French can serve as a goal, although it is uninterpretable. Also, Gen may contain an interpretable, but unvalued, feature. Furthermore, we adopt Legate’s (2002) proposal that uninterpretable features can simply be deleted in a global fashion, and that Agree deals with unvalued features before the derivation is sent to the interfaces. We believe that the distinction between uninterpretable and interpretable features only plays a role at LF: interpretable features contribute to the interpretation, uninterpretable features do not.

Another difference between the Agree operation proposed by Chomsky and the one put forward by P&T is that in the latter there is a link between the instances of the feature involved, say F_1 and F_2 , which is accessible to subsequent processes. In the former, in contrast, once Agree has taken place, the syntax can no longer relate F_1 and F_2 , as there is no permanent connection between them. Agreement in P&T thus results in feature sharing (Frampton & Gutmann 2000), in the sense that the output of Agree is a single feature shared by two (or more) locations. The Agree mechanism that we adopt thus involves feature sharing. With these theoretical considerations in mind, let us turn to the gender mismatches presented in the introduction.

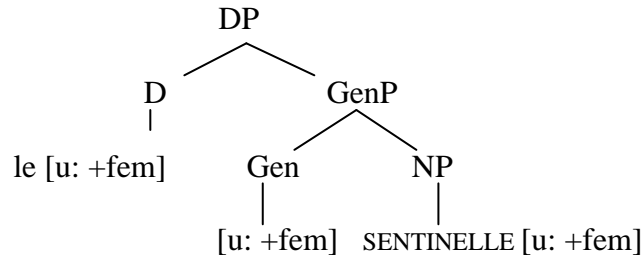
4.2 Analysis of the mismatches

We now return to the challenging data introduced in section 1 ((1)–(3)). (1) and (2) involve nouns of our class e), i.e. the default masculine nouns, and illustrate the gender mismatches we are interested in. They contrast with examples like (3) where no mismatch is possible. An analysis of (1)–(3) should explain why, in some cases, the gender feature on NP can be, must be, or cannot be overridden. In addition, it should account for the distinction between inanimate and animate nouns. This is particularly important for our classes d) (the *la sentinelle* class) and e) (the default masculine nouns), which have the same structure as inanimate nouns in Atkinson’s work (recall (10)). Another puzzle that has to be addressed is why in some cases gender *can* be overridden whereas in others it *must* be.

As animacy is a crucial property of the nouns found in the examples we are examining, we will start our discussion with the distinction between inanimate and animate nominals. As the latter are specified for sex, we will assume that the two properties (animacy and sex) go hand in hand, even though this might be a simplification. What we suggest is that the difference between the nouns whose referent is animate and those whose referent is not is represented in their structure. More precisely, we propose that animates have a Gender projection, in contrast to inanimates. For the classes a), b) and c), i.e. the suppletive forms (*garçon* “boy” / *filles* “girl”), the stem change forms (*directeur/directrice*) and the article change forms (*le/la professeur*), we partly adopt Atkinson’s analysis presented in (11), the difference being that we replace nP by GenP and \sqrt{P} by NP. The noun has an uninterpretable [+fem] or [–fem] feature, which values the interpretable unvalued feature on Gen and, after feature sharing, the uninterpretable unvalued feature on D. The semantic gender of such nouns corresponds to their gender on NP as observed in section 2: a noun which refers to a female is [+fem] and a noun which refers to a male is [–fem].

To deal with the specificities of our noun class d), the *la sentinelle* class, we propose that the feature of Gen, which is generally interpretable because it contributes to the interpretation of the noun, is *uninterpretable* with this class of nouns: although the referent of such nouns is specified for sex, this information is not available.⁵ To account for this fact, we suggest that their Gen feature is uninterpretable and unvalued (cf. Percus 2011 for Italian). It *becomes* valued when it receives the [+/–fem] value from N and shares it with the uninterpretable unvalued D. The structure of such nouns, after valuation, is given below:

(12) (cf. (10)b)

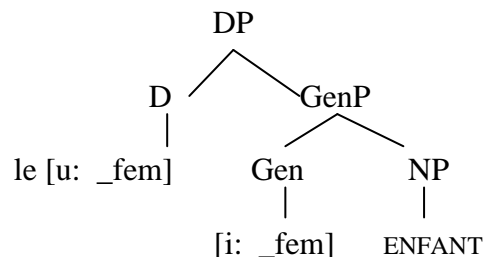


In (12), the feature [+fem] of the noun *sentinelle* “sentinel” has been passed onto Gen, and then onto D. This structure contains no information about the sex of the sentinel. This is why, in some cases, sex and grammatical gender may conflict. Our analysis allows us to account for i) the similarities between *sentinelle*-like nouns and other animate nouns – the presence of a sex feature as they are all animate, ii) the difference between such nouns and inanimate nouns, which do not have a sex feature, and iii) the difference between *sentinelle*-like nouns and nouns like *le garçon* “the boy” and *la fille* “the girl”, for which sex and gender correspond. In sum, we assume that there is a difference between ‘no sex’ which is a property of inanimates and ‘no information about sex’ which is a characteristic of *sentinelle*-like nouns, represented by the uninterpretable Gen we argue for.

As for nouns of class e), the default masculine nouns, we suggest that they do not have a gender value: although GenP is present in their structure, signaling that we are dealing with an animate noun, gender is absent on the noun and the unvalued gender feature of the probes cannot be valued. According to Preminger (2011), Agree is obligatory, but its success is not guaranteed. A possible result of failed agreement is default morphology (Preminger 2009). This is what we propose for ϕ -incomplete nouns such as *professeur*: with class e) nouns, Agree fails, but this does not lead to ungrammaticality. Rather, the unvalued features in DP are spelled out as default agreement at PF. It is the absence of a feature specification for gender which will allow sex to be specified later in the derivation and to override grammatical gender in partitive structures (1), in predicative contexts (2), and in contexts of reference (3). The absence of gender specification with class e) nouns is thus an essential point of our account. In Atkinson’s analysis of these nouns, gender on the noun is specified, viz. as masculine. This suggests that sex cannot be specified later and hence that her analysis cannot account for data like (1) and (2). Our analysis also implies that class e) nouns and *sentinelle*-like nouns differ in that only the former are unspecified for gender (and therefore sex) and can hence be involved in the gender phenomena we are discussing. In our analysis, the class d) nouns, the *la sentinelle* class, are specified for gender, which values the feature on Gen, but

this feature on Gen is not interpretable for sex. In Atkinson’s analysis both types of nouns are treated on a par and should therefore not differ in constructions like (1)–(2), contrary to fact. The tree we propose for class e) nouns, which are masculine by default (because of Failed Agree), as it is sent as a phase to PF, is provided below:

(13)



What we propose implies that polysemous words like *enfant* are listed twice in the lexicon depending on the information they encode: as nouns either specified for gender or not. However, as the two meanings are related (both specify *enfant*), they are in the same entry. Only nouns specified for gender (in)directly values the unvalued feature on D. When its value is [+fem], the article, for instance, is *la* “the.FEM”, and when it is [–fem] the article is *le* “the.MASC”. As proposed above, when the noun is not specified for gender, the gender feature on D remains unvalued and is spelled out as default gender at PF. As the default gender in French is masculine, the article will be *le* “the.MASC”.

The gender mismatches discussed in this paper only occur with class e) nouns, which have a default masculine gender, interpreted as an unspecified gender on the noun. The DP with the unvalued features will be sent as a phase to PF, where the unvalued features on D and adjectives will be spelled out as default masculine. In a compositional view of phases, Hinzen (2012) argues that due to Transfer of the phase interior, the phase is reduced to its head and its left edge, both of which then belong to the next phase and are interpreted therein (cf. Chomsky’s 2001 Phase Impenetrability Condition: PIC). At this point semantic agreement comes in: since valuation of the gender feature of the probing D has not taken place the unspecified gender value of the head of the DP phase, D, can be provided with a specification. In line with Yatsushiro & Sauerland (2006) and others we assume that the gender value is inserted in a high position within the DP, viz. in D. In the case of class e) nouns like *professeur* a feminine gender feature in D entails reference to a woman and a masculine gender feature in D entails reference to a man (cf. e.g., Corbett 2003). Specified D can serve as a goal for agreement with, e.g., a predicative adjective. Since the DP that has

been sent to the Interfaces contains a GenP (linked to D via (failed) Agree), gender in D will be interpreted as a sex value.

In the gender phenomena we are investigating, the distance between the agreeing element and the noun also plays a role. The examples show that within the DP, local agreement takes place with the noun. Elements that are less local, however, do not necessarily agree or do not agree at all in grammatical gender. Whereas attributive adjectives agree in grammatical gender, partitive elements do not necessarily do so. Less local elements like pronouns do not syntactically agree in grammatical gender: the unspecified gender feature in D receives a feature corresponding to sex. This is summarized in (14):

(14) Observations for class e):

- Within the strict DP: the D unspecified for gender cannot receive a semantic gender specification. Hence default masculine.
- In the ‘looser’ DP: the D unspecified for gender can receive a semantic gender specification: partitive constructions (1).
- Agreeing/referring elements outside DP: the D unspecified for gender must receive a semantic gender specification: predicates (but recall note 1), pronouns (2).

That distance may play a role in gender agreement has also been observed by Corbett (1979 and later work). On the basis of Russian, English, French, German and some other languages and on the basis of various constructions, Corbett (1979) shows that whereas local relations favor grammatical agreement, less local relations favor semantic agreement. This is expressed in Corbett’s (1979) agreement hierarchy:

(15) Attributive – predicate – relative pronoun – personal pronoun

The hierarchy expresses that the distance between the element that determines agreement (the controller) and the agreeing element has an impact on the kind of agreement that takes place, namely grammatical vs. semantic agreement. Semantic agreement occurs more often in languages of the world if the agreeing element is a personal pronoun than if it is a relative pronoun. On the other hand, grammatical agreement is much more common if the agreeing element is an attribute than if it is a predicate. Corbett’s agreement hierarchy is corroborated by the French data presented in this paper. The examples (1)–(2) show that whereas within the

strict DP gender agreement may not be semantic, in the looser DP and outside the DP gender agreement may or must be semantic.

(1) illustrates semantic gender agreement within partitive constructions: the semantic gender feature specifies the unvalued gender feature in D within the strict DP. The partitive agreement relation is not expressed in Corbett's hierarchy and could be added to it. Since in both examples the attribute grammatically agrees with the noun, partitive as an agreeing element should be lower in the hierarchy than the attributive position. Taking examples like (1) into consideration, we propose to refine (15) as (16):

(16) Attributive – **partitive** – predicate – relative pronoun – personal pronoun

Whereas (15), refined as (16), just describes, in terms of locality, with which agreeing elements semantic agreement is more common, the hierarchy is also predicted in an account based on valuation, as proposed in this paper. We claim that an analysis of agreement in terms of valuation, i.e. feature sharing, can account for the hierarchy. Feature sharing through valuation only takes place within a phase (Chomsky 2001). If the strict DP is a phase, this explains why attributive agreement occupies the highest position in the hierarchy. In French, a semantic specification can only be added after the failure of Agree within the DP phase. In other words, in case of a failed Agree relation, specification of the unspecified gender feature in D is still possible. Notice that this means that the semantic feature is inserted after the valuation cycle within the strict or 'looser' DP, in order to serve as a goal for agreement relations in a second cycle of merge. This accounts for the fact that grammatical agreement takes place in earlier cycles and semantic agreement in later cycles of the derivation.

5. Conclusion

In this paper we have shown that with some default masculine nouns in French gender mismatches are possible. In partitive constructions, predicative APs or with pronouns the default masculine agreement can be overridden by semantic agreement.

To account for the gender phenomena discussed in this paper and building on Atkinson (to appear), based on Kramer (2009), we have proposed that gender is expressed in two positions in DP: on NP as an uninterpretable feature accounting for grammatical gender and

on the head of GenP as a feature accounting for semantic gender. We have proposed that only animate nouns have a GenP, in contrast to inanimate ones, and that the feature on Gen for the *sentinelle*-like nouns is uninterpretable, so that the feminine feature inherited from the noun is not necessarily interpreted as female. For default masculine nouns such as *professeur* and *mannequin*, we have claimed that gender is unspecified inside DP but that it can be specified in D through semantic reference serving as a goal in a second cycle of merge, accounting for gender mismatches outside the strict DP.

We have also shown that gender mismatches concern relations that are not strictly local. Inside the strict DP, grammatical gender agreement between Gen and NP is stricter than in the ‘looser’ DP, which is in turn stricter than the agreeing/referring relation with elements outside DP, reflecting Corbett’s agreement hierarchy, to which we have added *partitive*. We have argued that an account in terms of valuation within the phase can nicely account for the locality restrictions.

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¹ The grammaticality judgments are mainly based on the intuitions of native speakers of French from Switzerland. Feminine forms of profession nouns are accepted to various degrees in French speaking countries. This may also lead to a different acceptance of feminine agreement in (2), especially with respect to agreement with the predicative adjective. (1–3) are our own, but similar examples can also be found on the Internet (i) or in the French database Frantext (ii):

(i) *Anne-Isabelle, mon professeur, était très gentille.*
 Anne-Isabelle my.MASC professor was very kind.FEM.
<http://ecoles.ac-rouen.fr/wallon/Archives/AS0304/Musique/mus1.htm>

(ii) *Elle était la plus jeune des enfants vivants.*
 she was the.FEM. more young of.the children living.MASC.
 “She was the youngest one of the children who were still alive.”

² To our judgment, in (3), there has to be gender sharing in a linguistic context. However, when pointing is involved, gender sharing is not necessary.

(i) *Voici la sentinelle. Il/Elle a une longue barbe.*
 here.is the sentinel.FEM. he/she has a long beard
 “Here is the sentinel. He has a long beard.”

³ Ritter’s (1993) arguments against Gender Phrase as a separate category are only based on some exceptional cases in languages different from French. Furthermore, the argumentation does not explicitly concern animate nouns, which are the main subject of our paper.

⁴ In addition to these forms, the French dictionary *Le Petit Robert* (Rey-Debove & Rey 2010) also mentions the variants *une professeure* and *une mannequine*.

⁵ Alexiadou (2004) does not allow gender to be expressed on a functional projection, because functional projections should have a semantic or syntactic function. In our approach Gen does express semantic gender, but in the case of class d) nouns, sex is not specified because it does not correspond to grammatical gender on the root.