Natascha Pomino* and Elisabeth Stark

Plural marking in French NA/AN combinations: What liaison can tell us

DOI 10.1515/zfs-2016-0011

Abstract: Our paper discusses different patterns of plural marking in N(oun)A(djective)/A(djective)N(oun)-combinations in phonic French. We first show, based on previous observations, that French has incomplete plural agreement in complex nominal phrases and that there is a striking asymmetry between AN-combinations (plural marking on the determiner and prenominal adjectives via liaison, where possible) and NA-combinations (usually, only plural marking on the determiner and infrequent liaison between N and postnominal A). In order to understand this discrepancy, we have analyzed all the occurrences of AN and NA in two French corpora and found a strong tendency for liaison in NA only to appear systematically and independently from register variation in “proper-name like” expressions such as Jeux Olympiques ‘Olympic Games’ ([ʒøzolɛ̃pik]). In a third step, we discuss this empirical finding and consider it synchronically as a case of morphophonological “proper name marking” (cf. Nübling 2005).

Keywords: Nominal plural inflection, French liaison, adnominal adjectives, proper names, corpus study (PFC)

1 Introduction

In the phonic (= spoken, as opposed to the graphic/written modality) realization of French, the phenomenon of liaison is one of the most striking sandhi phenomena of this language. Liaison is understood here as the overt realization

1 Even if phonic and graphic are not familiar expressions to refer to the medial, modality-based opposition between spoken vs. written, we adhere to this terminology, as spoken and written are polysemous adjectives and very often refer to informal (spoken) vs. formal (written) uses of language (cf. also the notions of Nähe and Distanz of Koch and Oesterreicher [2011]).

*Corresponding author: Natascha Pomino, Romanistik/Linguistik, Bergische Universität Wuppertal, E-mail: pomino@uni-wuppertal.de

Elisabeth Stark, Romanisches Seminar, Universität Zürich, E-mail: estark@rom.uzh.ch
of a latent word-final\(^2\) consonant which (in a specific syntactic/prosodic context) is not pronounced before a following word-initial consonant, but is realized in front of a following word-initial vowel (see the examples under [1] below). French has several latent consonants; the most frequent ones are [z, t, n]. For the following discussion, only [z] will be of interest. Concerning NA/AN-combinations in French, there is a striking asymmetry in what looks like inflectional plural marking via liaison: whereas prenominal adjectives generally show the realization of the latent consonant [z] in front of a noun with vocalic onset, this does not hold for a plural noun preceding an adjective with vocalic onset. Leaving the determiner aside, in (1a) and (1b), there is only one plural marking, i.e. a suffix on the prenominal adjective petit, or, alternatively, a plural prefix on the noun enfants. In NA-combinations, things are different. In (1c), for example, liaison is more likely to be omitted (the plural is thus marked neither on the noun nor on the adjective), whereas in (1d), liaison takes place almost without exception. That is, in NA-combinations, liaison is somehow restricted (cf. e.g. Delattre 1966; Ågren 1973: 5, 124; Morin and Kaye 1982: 294–295; Post 2000; Laks 2005: 104, 106; Bybee 2005; Ranson 2008; Meinschaefer, Bonifer, and Frisch 2015).

(1) AN-combination

a. le-s petit-s enfant-s\(^3\) generally with liaison
def-PL small[m]-PL child(m)-PL
[l-e p(ə)ti-z əfɑ̃]
def-PL small[m]-PL child(m)
‘the small children’

b. le-s petit-s-enfant-s generally with liaison
def-PL small[m]-PL-child(m)-PL
[l-e p(ə)ti-z-əfɑ̃]
def-PL small[m]-PL-child(m)
‘the grandchildren’

\(^2\) For a very good overview of five competing approaches to analyze the status of this liaison consonant see Côté (2011: Ch. 3).

\(^3\) Note that enfants is only orthographically a plural form. Our argument is based exclusively on the phonic level (never on spelling). In our glossing, we follow the Leipzig Glossing Rules except for those features which are never realized (only on the graphic level), such as the plural in adorables in example (1c). Based on a realizational approach to morphology we will argue in this paper that the categorical non-realization of a feature value is equivalent to the absence of this feature in the respective item. For example, it is commonly assumed that beautiful in the beautiful girls is an element unable to inflect for number; most probably, nobody would say that beautiful is in its underlying form plural and that the value is just not overtly realized (i.e. the gloss would be simple beautiful rather than beautiful [f.PL]).
NA-combination

c. le-s enfant-s adorable-s rather without liaison
def-PL child(M)-PL adorable[M]-PL between N and A
\[l-ez \ˈafə adɔʁabl\]
def-PL child(M) adorable[M]
‘the adorable children’

d. le-s Nation-s Uni-e-s rather with liaison
def-PL nation(F)-PL united-F-PL between N and A
\[l-e nasjɔ̃-z yni\]
def-PL nation(F)-PL united[F]
‘the United Nations’

A major difference between examples (1a) and (1b) lies in their semantics: (1b) has clearly a non-compositional reading, whereas (1a) denotes a group of small children and has thus a compositional reading, whereas Nations Unies in (1d) (even though it can be read compositionally) denotes most probably the specific United Nations. In this non-compositional reading, liaison-[z] is almost categorical.

It is clear that the patterns of plural marking observed under (1) are in some way deviating agreement patterns, and they will turn out not only to be correlated generally with a higher degree of “lexicalization”, as is traditionally assumed, but in most of the attested cases of our corpus study (see Section 3) with a special function, the marking of “proper-name-hood” (cf. Nübling [2005] for a typological overview). We face thus the maintenance of a liaison consonant in frequently co-occurring lexical items, the frequency being caused by the items forming a complex proper name without compositional readings available, which has subsequently been reanalyzed as a marker of namehood. The present contribution is to our knowledge the first time after Matushansky (2008) and Bosredon (2011) that the morphological structure of complex proper names in Romance (French) is systematically taken into consideration.

In Section 2 of this paper, we will present the most important facts about French liaison in the context of nominal plural marking in AN/NA-combinations. In Section 3, we will turn to a corpus analysis of French liaison facts in NA/AN-combinations in two corpora, which will show a specific liaison pattern for proper-name like expressions, a fact usually not mentioned in the literature. Section 4 attempts to discuss these findings in the light of research on proper

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4 Lexicalization may imply in some cases semantic opacity or “idiomatization”, i.e. non-compositionality, but does not necessarily have to (cf. Bauer 1983: 49).
name marking (Nübling 1998, 2005). We will conclude that there is a diachronic loss of liaison in French NA-combinations, as opposed to AN-combinations, and that the maintenance of the liaison-[z] in proper-name like expressions such as Jeux Olympiques is a kind of “frozen” morphology which can be seen as assuming a new synchronic function, i.e. proper-name marking or at least the marking of a clearly non-compositional reading.

2 French liaison in plural AN/NA-combinations: A brief overview

With respect to nominal plural marking in French, it is important to emphasize that in spoken, i.e. phonetically realized, French sentences, overt plural morphology in nominals is generally extremely reduced when compared with other Romance languages (cf. Stark 2008). In fact, in the majority of French DPs, only the determiner carries overt number marking (cf. e.g. Bouchard 2002). That is, plural marking is not overt in many adjectives and nouns when pronounced in isolation, with the exception of a group of masculine forms exhibiting vocalic alternation such as [-al]SG ~ [-o]PL, e.g. cheval ‘horse’ ~ chevaux ‘horses’; overt plural marking on adjectives and nouns is thus in some cases at most lexically determined5 and no regular uniform morphological rule exhibiting one clear plural exponent exists in phonic French (cf. Pominoforthcoming). For most French DPs, it is only in liaison contexts that adjectives and nouns can potentially bear an at least apparently plural marker in the form of [z]. Although liaison is certainly not only a morphophonological phenomenon,6 its occurrences in the contexts we discuss below are overwhelmingly assumed to be cases of plural marking (cf. e.g. Bybee 2005).

With respect to AN/NA-combinations, liaison is described as being almost obligatory for AN (at least for plural marking), but only optional and quite rare in spoken (informal) French for NA7 (cf. e.g. Ågren 1973: 5, 124; Morin and Kaye

5 See Bonami and Boyé (2005: 91–92) for a detailed discussion.
6 Cf. Durand and Lyche (2008: 34): “Based on extensive data drawn from a minimum of ten investigation points and one hundred informants, we will argue that liaison cannot be seen as a single phonological process, but that it is partly morphosyntactic, partly phonological, partly phonetic and partly the result of the speaker’s knowledge of the orthographic system, particularly in the areas most sensitive to sociostylistic variation.”
7 Liaison in this context is sometimes said to be frequent, however, in “elevated” style, cf. Morin and Kaye (1982: 293), Laks (2005: 106), and is found even between two postnominal adjectives (cf. Morin and Kaye 1982: 313–314), but see the inconclusive results about this in Meinschaefer, Bonifer, and Frisch (2015).
1982: 294–295). Furthermore, there is almost never liaison between the last element of a noun phrase, e.g. a postnominal adjective, and the following constituent (VP or other constituent), at least not in unmarked style. Thus, apparently, most postnominal adjectives in French quite systematically lack full (or overt) number inflection, showing (almost) no liaison with a following constituent, cf. (2b); the same holds for the noun in AN-structures in general, cf. (2a). Prenominal adjectives, however (cf. [2a]), are usually fully inflected for number. This holds also for examples in (3), which cannot be read fully compositionally.9

(2) Plural marking via liaison in free syntactic sequences

a. Plural is marked on D and on the prenominal A

\[ \text{le-s savant-s } \text{anglais} \text{ le-s petit-s } \text{enfant-s} \]

\[ \text{def-pl wise(M)-pl English[M,PL]} \text{ def-pl small[M]-pl child(M)-pl} \]

\[ \text{l-e sav-z} \text{ågle} \text{ l-e p(a)ti-z} \text{åfå} \]

\[ \text{def-pl wise(M)-pl English[M]} \text{ def-pl small[M]-pl child(M)} \]

‘Englishmen who are wise’ ‘the small children’

b. Plural is marked only on D (no plural marking on the noun or the postnominal A)

\[ \text{le-s ami-s } \text{anglais } \text{enorme-s} \]

\[ \text{def-pl friend(M)-pl English[M,PL]} \text{ fat[M]-pl} \]

\[ \text{l-ez ami } \text{ågle } \text{enorm} \]

\[ \text{def-pl friend(M) English[M] fat[M]} \]

‘the fat English friends’

(3) Plural marking via liaison in lexicalized phrases

a. Plural is marked on D and on the prenominal A

\[ \text{l-e bo-z } \text{ar} \text{ l-e p(a)ti-z } \text{åfå} \]

\[ \text{def-pl beautiful.M-PL art[M]} \text{ def-pl small[M]-PL child(M)-PL} \]

\[ \text{l-e beu-x } \text{art-s} \text{ le-s petit-s- } \text{enfant-s} \]

\[ \text{def-pl beautiful.M-PL art(M)-PL def-pl small[M]-PL child(M)-PL} \]

‘the fine arts’ ‘the grandchildren’


9 All examples have been checked with at least two native speakers of (diatopically unmarked) French.

10 This is cited and discussed in Klein (1982: 162), but it probably goes back to Sten (1956: 66).
b. Plural is marked only on D (no plural marking on the noun or the postnominal A)\textsuperscript{11}

\begin{tabular}{llll}
le-s eau-x & usé-e-s & le-s maladie-s & infectieu-se-s \\
def-PL water(F)-PL & used-F-PL & def-PL disease(F)-PL & infectious-F \\
[l-ëz o yze] & [l-e maladi [f[ëfksjo-[z]]] & [l-e maladi [f[ëfksjo-[z]]] & [l-e maladi [f[ëfksjo-[z]]] \\
\end{tabular}

\begin{tabular}{ll}
\textquoteleft the waste waters\textquoteright & \textquoteleft the infectious diseases\textquoteright \\
\end{tabular}

This pattern shows that prenominal adjectives behave in principle differently from postnominal ones, \textit{there is a clear asymmetry can be observed} when the pre- or postnominal position of the adjective plays a crucial role for the realization or non-realization of \textit{liaison}-[z]. But we will see in the next section that in one and the same configuration, i.e. plural in NA-combinations, we can still find particularly high \textit{liaison} realization rates with \textit{some specific items} (cf. the example in [1d]). Going back to this example, we observe that the fully compositional phrase \textit{les enfants adorables} \textquoteleft the adorable children\textquoteright (1c) lacks overt plural marking except for the determiner, whereas \textit{Nations Unies }\textquoteleft United Nations\textquoteright (1d) shows categorical \textit{liaison}, blurring the observed asymmetry between plural AN- and NA-combinations. We thus agree partially with Sampson (2001: 252) in that \textquoteleft\textit{[h]istorically, liaison evidently began as a phonological process which operated across word boundaries within phrases and indeed even across phrase boundaries within sentential units. [...] However, from being a phonologically conditioned phenomenon, liaison has increasingly been reanalyzed (Morin and Kaye, 1982: 326).\textquoteright\ The fact that \textit{Nations Unies} shows obligatory \textit{liaison} as opposed to most NA-combinations is to our mind the result of a reanalysis of the \textit{liaison} consonant in this and similar NA-combinations. The \textit{liaison} consonant [z] has been reanalyzed in several respects as observed in the literature,\textsuperscript{13} and

\textsuperscript{11} It is clear that \textit{eaux usées} \textquoteleft waste water\textquotesingle is not an ordinary syntactic phrase (i.e. a free syntactic sequence), because it cannot appear in the following contexts: *\textit{ces eaux sont usées}, *\textit{l'usure de ces eux}, *\textit{des eaux très usées}, *\textit{des eaux usées et sales}, *\textit{des eaux usées sont de l'eau}, *\textit{des eux d'usure} (Gross 1988: 69).

\textsuperscript{12} Note that the [z] of [ëfksjo[z]] is not to be associated with the feature value plural; it is rather part of the feminine derivational suffix -euse [øz] (vs. masculin -eux [ø]).

\textsuperscript{13} Another kind of \textquoteleft reanalysis\textquoteright of liaison-[z] concerns different cases of non-etymological liaison (liaison errors, fausses liaisons, pataquès, velours or cuirs). This kind of liaison is a quite extensive phenomenon that is not linked with a specific French sub-variety, i.e. it is not simply a matter of performance (cf. Desrochers 1994: 244). There are different types and sub-types of \textit{\textquoteleft wrong liaison\textquoteright} and not all [z] are to be associated with a nominal plural (cf. Pichon 1935; Morin and Kaye 1982; Klausenberger 1984; Desrochers 1994): (i) lexicalization (e.g. \textit{zyeu-}\textit{ter} \textquoteleft to gape at\textquoteright; denominative verb, cf. sg. \textit{œil} \'eye\textquoteright vs. pl. \textit{les yeux} [lezjo] \textquoteleft the eyes\textquoteright), (ii) analogy (e.g. trop [z] occupé \textquoteleft too busy\textquoteright parallel to très occupé \textquoteleft very busy\textquoteright), (iii) liaison at a distance (e.g. soyez bien [z] à l\textquoterightécoute \textquoteleftlisten carefully\textquoteright), and (iv) plural marker in the prenominal
we will focus here on its potential reanalysis in the postnominal domain, i.e. in NA-combinations.

3 Liaison in French AN/NA-combinations – Two corpus analyses

In what follows, we will present two empirical corpus studies on the realization of liaison in contemporary French in plural NA/AN-combinations, in order to have quantitative evidence for its actual distribution and to understand its function in those cases where [z] can be, at first glance, associated with a plural. Although several recent studies have been undertaken in order to describe liaison (also) in these contexts (cf. Post 2000; Durand and Lyche 2008; Ranson 2008; Meinschaefer, Bonifer, and Frisch 2015, to name but a few), no study has made an effort to discuss in detail or to explain the fact that [z] liaison with postnominal adjectives is strikingly infrequent and is restricted to certain items. We will concentrate especially on this kind of examples (e.g. Jeux Olympiques).

3.1 Results from the Phonologie du Français Contemporain (PFC)

In order to figure out for our NA/AN-combinations, “[...] in which contexts [liaison is] always present (categorical liaison), in which contexts [it is] optional (variable liaison), and in which contexts [it is] totally or virtually absent (erratic or non-attested liaison)” (Durand and Lyche 2008: 40) and to learn more about its function, we conducted first a query in the corpus Phonologie du Français Contemporain (PFC, http://www.projet-pfc.net/moteur.html), focusing on the liaison element [z] in NA/AN-combinations, usually considered a plural morpheme (see above). The online version of the PFC corpus includes according to Durand, Laks, and Lyche (2002, 2009) about 350 hours of spoken data from 396 speakers (born between 1910 and 1995) from about 36 different locations in France, Belgium, Switzerland, Quebec, Lebanon, Morocco and some other locations in Africa and the Antilles. Speakers were asked to read aloud a word list and a small text, participated in an interview (23 minutes, of which about domain. The most productive and regular cases of wrong liaison are those between a numeral (or a quantifier) and a noun (cf. Desrochers 1994: 252), cf. quatre amis [katzami] (‘four friends’).
10 minutes were transcribed) and were recorded in one informal conversational situati-
on (about 30 minutes, of which about 10 minutes were transcribed). These four different recording situations are considered to reflect different registers or niveaux de langue, with the informal conversation allowing for features of français familier (‘colloquial French’) and the text task eliciting features of français soutenu, a very elevated register. The corpus was designed by experts in French phonology to investigate liaison and Schwa realization in the first place (among other features) and it comprises a reading task on purpose, considered as absolutely legitimate data when it comes to studying French liaison (cf. Sampson 2001: 245–246, Eychenne et al. 2014: 40–41). The corpus was transcribed orthographically (the word list, the text and 10 minutes from the interviews and informal conversations) and analyzed with the software PRAAT and coded, among other things, for liaison (with the four subtypes “realized”, “non realized”, liaison non enchaînée, i.e. realization of the liaison consonant before a pause, and “epenthetic” liaison, i.e. liaison where no underlying consonant can be assumed, as in quatre officiers [katr(o)(z)ɔfiʃe] (‘four officers’).

At the time of our first study (October–December 2012), the corpus comprised a total of 53,561 potential liaison contexts, in which 25,534 items show a realized liaison consonant (e.g. [z], [t], [n]). We did not differentiate between the two types of liaison relevant in our context, i.e. “realized” or “non-enchaînée”, as we were interested in the pure manifestation of liaison in NA-/AN-combinations. Out of the 25,524 items, 11,811 show the liaison consonant [z]; note, however, that [z] is not to be associated in all of these items with a plural (it may, for example, also be part of the verbal ending). We therefore not only restricted our search to the liaison consonant [z], but we also specified the left and right context of the liaison, in order to yield only relevant results for AN and NA. Furthermore, we also searched for the absence of possible liaison in the two contexts relevant for our analysis. This resulted in a total of 1,857 items showing the combination NA/AN with potential liaison [z] out of which 166 (= 9%) items are with prenominal and 1,691 (= 91%) with postnominal adjectives (cf. Figure 1). In all the results obtained, [z] can be associated with

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14 As in Nous sommes allés au cinéma, [nusɔmzɔliazi:nema], ‘We went to the movies’.
15 The search engine of the PFC does not allow one to restrict the case “absence of liaison” to a special latent consonant; we therefore filtered the items manually. Out of a total of 204 items showing “absence of liaison” in an AN-context, 52 are with plural [z]. In NA-contexts, we have a total of 1,210 items, out of which 1,070 comprise plural [z].
16 21 items were not taken into consideration in our results. They all occur in the Swiss part of the PFC and concern the example la Rue de Petites Haies, where haies ‘hedges’ begins with a so-called h-aspiré, an impossible liaison context (cf. among others Klein 1982: 122).
a plural, i.e. we are apparently dealing with liaison of a consonant bearing grammatical information.

Out of the 166 items with prenominal adjectives, 135 items (81.3%) show liaison with \([z]\) between adjective and noun, while 31 items (18.7%) are without realized liaison (cf. Figure 2). For NA-combinations, we obtained quite the opposite result: 1,070 items (63%) are without realized liaison between the noun and the following adjective, and only 621 (37%) show liaison. In other words, there is a clear tendency in NA-combinations not to mark plural-[z] via liaison on the noun (or as a prefix on the following adjective, depending on which analysis one prefers).

Regardless of where the speakers come from,\(^{17}\) the number of examples with realized liaison in AN-combinations is always higher than the one without

\[\begin{array}{c|c|c}
\text{AN} & \text{NA} \\
\hline
\text{with liaison} & 135 & 621 \\
\text{without liaison} & 31 & 1070 \\
\end{array}\]

\(^{17}\) In the following tables and diagrams, only attested occurrences of NA/AN-combinations in the plural are considered, which explains why not all regions represented in the PFC figure in our results.
These results show that there is a clear preference for marking plural-[z] in the prenominal context whenever possible. For AN, the clear tendency to mark liaison is furthermore independent of the (elevated) register and recording situation: only 1 liaison of the AN-type occurs in the reading task (= elevated register), whereas 165 occur in informal conversations, i.e. the most natural communicative contexts. Realizing liaison in plural AN-combinations seems to be a productive morphosyntactic rule in French. In contrast, in NA-combinations, [z]-liaison is avoided whenever possible. However, compared to the AN-
combinations, the tendency in NA-combinations is not that clear, as e.g. the results for France show in Figure 5.

As can be seen in Figure 5, which only concerns data from France, out of the 70 items with prenominal adjectives, 62 items (88.6%) show liaison with [z] between adjective and noun, while 8 items (11.4%) appear without realized liaison. This is so far in line with what Delattre (1947) had already observed. Let us consider now the NA-combinations: 531 items (57.7%) are without realized liaison between the noun and the following adjective, while only 390 (42.3%) show liaison. Even though there is a slight preference for not realizing liaison in NA-combinations, at first glance, the diagram appears to illustrate exactly what is meant by optional liaison.

It remains to be explained why the regularities for postnominal adjectives are so unclear, as opposed to prenominal ones. Is liaison between the noun and the adjective optional (as has been often claimed)? Do we have competition between two equally available constructions (cf. Bybee 2005)? In what follows, we hope to show that there may be another explanation for the attested variation, especially for NA-combinations. For this, we have to consider our results in greater detail.

The picture changes if we consider that the examples stem (at least partially) from different recording situations: (free or guided) conversation vs. reading task. As can be seen from Figure 6, in NA-combinations the possibility of realized liaison varies considerably with respect to the respective recording situations. In free and guided conversation, we have a clear preference (82%) for not realizing liaison between the noun and the adjective, while the presence of liaison increases considerably in the reading task.
There are several reasons why the results for the reading task show a higher percentage of realized *liaison*. First, it is well-known that different recording situations are associated with different language registers and, in the case at issue here, a higher register triggers more *liaison.* Second, the results of the reading task may be subject to the phenomenon of *spelling pronunciation* (i.e. a pronunciation which is based on spelling / orthography and does not reflect

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18 For Delattre (1947, 1955) and others, *liaison* (or at least *optional liaison*; cf. e.g. Klein [1982: 171] who states: “Diese *liaisons* gehören alle einer gehobeneren Stilschicht an und werden in der normalen Unterhaltung nicht oder selten gemacht” [These *liaisons* all belong to higher registers and are not or seldom realized in normal conversation]) is clearly tied to diastratic and diaphasic variation. Stylistic factors are even the most prominent factors for Delattre (1955: 44) (cf. also Malmberg 1969: 142; von Proschwitz 1953: 12; Fouché 1959: 441–442; Klein 1982: 171) even though the social class of the speaker also plays a central role (cf. e.g. Booij and de Jong 1987). In very general terms, it is said that *liaison* is more frequent in formal registers than in colloquial ones and speakers of the “upper class” (cf. “la classe la plus cultivée”, Delattre 1955: 45) realize more *liaison* than less “cultivated/educated” speakers (cf. e.g. Delattre 1947; Delattre 1955; Fouché 1959; Ågren 1973: 125; Boij and de Jong 1987; de Jong 1994, Meinschaefer, Bonifer, and Frisch 2015). Thus, *liaison* between a plural noun and a postnominal adjective (e.g. *des hommes illustres*) is generally omitted both “dans la conversation familière des gens cultivés” and “dans la conversation soignée” (i.e. [dezomilystr]), but it would be uncommon or rare to omit it “dans la conférence” (i.e. [dezomzilystr]) (Delattre 1955: 44–45).
Figure 7: Results recorded during the guided and free conversation

Table 1: Realized liaison between N and A in different corpus analyses according to Ranson (2008: 1673).

<table>
<thead>
<tr>
<th>Author</th>
<th>AN-combinations</th>
<th>NA-combinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ågren (1973)</td>
<td>170/639</td>
<td>9/50</td>
</tr>
<tr>
<td>Malécot (1975)</td>
<td>11/102</td>
<td>11/102</td>
</tr>
<tr>
<td>Ashby (1981)</td>
<td>68/309</td>
<td>7/53</td>
</tr>
<tr>
<td>Smith (1996)</td>
<td>27%</td>
<td>18%</td>
</tr>
<tr>
<td>Ranson (2008)</td>
<td>17%</td>
<td>11%</td>
</tr>
</tbody>
</table>

In sum, many French nouns have lost the possibility to mark the plural via liaison-[z], which is in line with an early claim by Mok (1966: 36): “Les substantifs ont perdu leur forme de liaison dans le parler courant et ne présentent plus jamais par conséquent ce morphème” [Nouns have lost their liaison form in the standard or traditional pronunciation]. That is, in the reading task the speaker sees the plural -s and this may influence its pronunciation in a liaison context, whereas the potential influence of spelling may be less relevant in a situation of free or guided conversation.

If we leave the results of the reading task aside for the moment and consider exclusively the results recorded during the guided and free conversation, we observe the already mentioned prenominal-postnominal asymmetry, i.e. a clear preference for realizing liaison between a prenominal A and N and a strong dispreference for realizing liaison between N and a postnominal A (cf. Figure 7). Other corpus analyses have produced similar results (cf. Table 1). We can conclude thus with Durand et al. that with respect to N(pl)+A “[o]n remarque une forte différence entre la réalisation de la liaison et sa non-réalisation. Cette dernière apparaît comme le cas par défaut” [We remark a strong difference between realization of liaison and its non-realization. The latter appears to be the default case] (Durand et al. 2011: 123).
everyday speech and, consequently, they no longer bear that [plural, NP/ES] morpheme. As stated already in Section 2, the actual situation in French with respect to plural marking within the DP is such that we have a prenominal-postnominal asymmetry (cf. Figure 8): Plural marking via *liaison*-\([z]\) is possible and strongly preferred in the prenominal domain and strongly dispreferred (even almost impossible) on the noun or, more generally, in the postnominal DP-domain (Pomino 2012, Pompino forthcoming).

If there is no systematic plural marking in the postnominal domain, what does \([z]\) mark then in those cases where it still appears postnominally (cf. the results for the reading task in Figure 6)? Is this kind of *liaison* really plural marking in any case? If so, why is it so unevenly distributed? Is it due to a higher register? Can it tell us anything about the internal structure or category of the NA/AN-combinations (see e.g. Olsen 2015: 381)? Or could it be that it has acquired a new function in contemporary French?

In order to formulate a possible hypothesis, we will focus in what follows mainly on the results from the reading task in France in the PFC corpus. About 9/10 of all our NA-items are constituted by the following four examples: *circuits habituels* (22%), *visites officielles* (22%), *Jeux Olympiques de Berlin* (22%) and *usine de pâtes italiennes* (22%). As Table 2 shows, 374 out of 792 tokens (i.e. almost 47%) in the reading task show realized NA-*liaison*, confirming the already mentioned existence of this *liaison* as a marker of high registers (cf. Morin and Kaye 1982: 293; Laks 2005: 106). And only 109 tokens stem from the interview and the informal conversation, and among them, only 20 show realized...
Table 2: NA-liaison in two types of situations (reading vs. conversation, only France).

<table>
<thead>
<tr>
<th></th>
<th>with liaison</th>
<th>without liaison</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading task</td>
<td>374</td>
<td>418</td>
<td>792</td>
</tr>
<tr>
<td>Conversation</td>
<td>20</td>
<td>89</td>
<td>109</td>
</tr>
<tr>
<td>Σ</td>
<td>394</td>
<td>507</td>
<td>901</td>
</tr>
</tbody>
</table>

(*circuits habituels, visites officielles, Jeux Olympiques, pâtes italiennes*)

NA-liaison (i.e. only 18.35%). Thus, liaison in plural NA-combinations is anything but regular in natural, everyday French communication.\(^\text{19}\)

However, what is evident in the PFC data, is the fact that the instances of *Jeux Olympiques de Berlin* stand out, because, as Figure 9 shows, it is the only item where we have a clear preference for liaison (cf. Durand, Laks, and Lyche 2002: 103).\(^\text{20}\) Note that at the same time it is the only example where we deal with a proper name, a fact which has been neglected in previous studies. Thus, another crucial observation for our hypothesis is that whatever differentiates between *Jeux Olympiques*, on the one hand, and the other NA-combinations of the reading task, on the other hand, it has surely nothing to do with diatopic variation nor with different registers, as *circuits habituels, visites officielles, pâtes italiennes* as well as *Jeux Olympiques* are all examples of the reading task (cf. Table 2).\(^\text{21}\)

\(^\text{19}\) We are fully aware of the fact that this small lexical variety of examples limits the possible generalizations that we could draw from our data. We have tried nevertheless to identify possible explanations for the variation observable in the PFC corpus and suggest in the conclusion further psycholinguistic experiments to broaden the picture and to corroborate (or refute) our hypotheses.

\(^\text{20}\) See also the following quote from Durand, Laks, and Lyche (2002: 103): “Pour ce qui est de *jeux olympiques*, la lexicalisation avec liaison est généralisée chez les locuteurs de Grenoble et de Caen, mais pas chez les Canadiens interviewés.” [Concerning *jeux olympiques*, speakers from Grenoble and Caen generally lexicalize the form with liaison, but the Canadian speakers interviewed do not.]

\(^\text{21}\) An anonymous reviewer pointed out that the avoidance of a hiatus may influence the appearance of [z] in *Jeux Olympiques*. For reasons of space we cannot discuss this point in length, but we have tested it also in the Sapperlot corpus study. If it were true that nouns ending in vowel always trigger a higher liaison rate, we would expect also a higher occurrence of liaison in the case of *idées autonomistes, eaux usées* etc. (cf. Table 3), but we do not.
It is a fact that “strongly lexicalized” French NA-combinations seem to have maintained the liaison [z] in NA-combinations (cf. Ågren 1973: 124; Klein 1982: 171–172; Bybee 2005: 27; Meinschaefer, Bonifer, and Frisch 2015: 384). However, we argue in what follows that the kind of liaison in Jeux Olympiques should be treated apart from the one found in circuits habituels, visites officielles and pâtes italiennes.

### 3.2 Results from the Sapperlot corpus

In a second step, we tried to determine whether this quantitative evidence for the special status of Jeux Olympiques in the PFC can be found in other data of contemporary French as well and whether we can find more instances of items with almost categorical NA-liaison. For this reason, we participated in the

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**Figure 9:** NA-combinations (reading task, only France).

![Graph showing NA-combinations](image)

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22 “Afin de m’en tenir uniquement aux liaisons facultatives [in the contexts N + A or N + past participle, NP/ES], j’ai aussi dû écarter les locutions toutes faites qui font une liaison communément considérée comme obligatoire. Une liste de ces cas comprend les expressions suivantes: […] Champs Elysées, Nations Unies, […] Jeux Olympiques […].” [In order to consider exclusively optional liaisons, I also had to remove collocations/idiomatic phrases which, as a general rule, show an obligatory liaison. A list of these cases includes the following expressions: […] Champs Elysées, Nations Unies, […] Jeux Olympiques […].] (Ågren 1973: 124)
Stimmen der Schweiz ‘Voices of Switzerland’ (cf. http://www.stimmen.uzh.ch/). It is a linguistic project of the Phonogrammarchiv of the University of Zürich in four languages conducted in collaboration with the Deutsches Seminar and the Romanisches Seminar. The main aim of the project is to investigate the linguistic landscape of Switzerland. The linguistic data were elicited through language-specific online recordings (mainly reading tasks) and collected in the Sapperlot corpus.

For the French part of the corpus analyzed here, participants recorded their reading aloud of 10 written examples, which contained a total of 37 possible contexts for liaison: 8 between two adjectives (AA, around 22%), 2 between a prenominal adjective and a noun (AN, around 5%), 9 between a determiner and a noun (DN, around 24%) and 18 between a noun and a postnominal adjective (NA, around 49%). We included liaison contexts between the determiner and the noun as a control context, as this is considered to be a case of obligatory liaison in the literature (cf. e.g. Ågren 1973: 5). We also included AA (postnominal adjectives), as this is considered to be a context of almost impossible liaison (see above, examples [2b]). As these data are data from a reading task, they are fully comparable to the reading data from the PFC. And, even though the Sapperlot corpus covers mainly a single French speaking region, i.e. Switzerland, we consider it legitimate to compare the overall findings of the two corpora, because the overall tendencies are clear and strikingly similar (see Table 3 below).

At the time we consulted the corpus (summer 2013), about 114 persons had been recorded. After having discarded obvious non-native speakers, incomprehensible recordings and recordings with heavy reading errors, we obtained between 66 and 87 reliable recordings per example. In detail, we have 635 for AA, 165 for AN, 651 for DN, and 1401 for NA, the context we are most interested in (total = 2852). Figure 10 gives the overall picture: in 96% (611 vs. 24) of all reliable recordings, liaison between two adjectives is avoided, whereas it is realized in 95% (156 vs. 9) of all reliable recordings for AN. Liaison between D and N is realized categorically (100%). When it comes to liaison in NA-combinations, the picture is less clear: it is realized in about 30% (424) of the reliable recordings, and not realized in about 70% (977).

A closer look at the single examples of NA-combinations shows an overall preference for not realizing liaison in 14 cases (in between 100% and 68% of the recordings), except for the last two examples in Table 3, where it is realized in almost every recording (mostly, in 96.5% and 99% of the reliable recordings). Figure 10 and Table [ ] in between these two poles and show no clear-cut preference for liaison or not.
According to Delattre (1955: 46–47), Côté (2011: 5) and others, liaison is generally more frequent after a vowel than after a consonant, and it is more frequent after one consonant than after two. Thus, for Figure 10 and Table 3 (and also for Table 2) the phonetic context immediately preceding the liaison consonant...
might be responsible for not triggering a clear preference.\textsuperscript{23} Note that, in contrast to the other examples, *forces* as well as *actes* ends phonetically in two consonants when pronounced in isolation, [fɔʁ] and [akt]. In the event of *liaison*, we would have thus an unfavorable cluster of three consonants. There is however the possibility of pronouncing a schwa, especially in *liaison* contexts such as in *forces alliées* [fɔʁ(əz)alie] and *actes humains* [akt(əz)ymɛ̃]. As the brackets in the transcription show, the presence of *liaison*-\[z\] implies the presence of an epenthetic schwa, at least in our data. For example, with one single exception, all speakers who make the *liaison* between *forces* and *allies* also realize a schwa, i.e. they say [fɔrsazalie]. Something similar holds for *actes humains* and *actes accomplis*.\textsuperscript{24}

Another factor that may impinge on *liaison* in the case of *forces alliées* is its unclear status with regard to proper namehood. In our example, *forces alliées* denotes any kind of allied forces, i.e. it was meant to have a compositional reading. However, as it appears in phrase initial position where the context is not yet clear, it could also be associated with the specific Allied Forces liberating Europe from Nazi Germany in the Second World War. In this case, we would have a proper name reading rather than a compositional one (see Section 4).

Much more interesting for our hypothesis is the reversed pattern between examples (1) to (14) and (17) and (18) in Table 3: as for *Jeux Olympiques* in the French PFC data, NA-combinations such as *Nations Unies* ’United Nations’ and *États-Unis* ’United States (of America)’ seem to be regularly pronounced with *liaison* (again, this patterns with Ågren’s observations for *Nations Unies*, cf. Ågren [1973: 124]).\textsuperscript{25}

\textsuperscript{23} As Ågren (1973: 127–129) states for his data (recordings of different radio broadcasts), 41.5\% of his analyzed cases induce *liaison* in this context, which comes close to our findings.

\textsuperscript{24} The difference between *actes humains* and *actes accomplis* with respect to the presence or absence of *liaison* goes back most probably to the position of the items in the corresponding example. *Actes humains* is found at the very beginning of the sentence, whereas *actes accomplis* appears only later and after several other instances of *actes* (without *liaison*), cf.: Les *actes humains* [65.65\% without *liaison*] sont des actes qui procèdent de la connaissance et de la volonté libre. Il faut distinguer les actes de l’homme, c’est-à-dire les *actes accomplis* [87.2\% without *liaison*] par un homme mais qui ne procèdent pas de la connaissance et de la volonté libre.

\textsuperscript{25} One anonymous reviewer pointed out to us that collocational strength may influence the preference of *liaison* in these cases. This needs to be checked in a large scale corpus analysis which we could not yet carry out. We leave this issue for further research.
3.3 Interpretation of our results

Thus, both the PFC data and the Sapperlot data show a very strong preference for liaison in plural AN-combinations, whereas liaison is not systematically realized in plural NA-combinations with a tendency towards non-realization. These findings are in strict correspondence to other recent corpus work on liaison by Ranson (2008: 1673–1674) on a spoken corpus from Southern France, Mallet (2009) on the PFC (see especially the tables in Mallet [2009: 319–321]) and Mein-schaefer, Bonifer, and Frisch (2015: 379, 382, 384) from the C-ORAL-ROM, who found consistent realization of the liaison consonant [z] in prenominal adjectives, but only one realization of the liaison consonant of the plural noun with a following adjective (soins intensifs ‘intensive care [unit]’), produced by only one speaker who shows an overall higher liaison realization rate than the other speakers of their corpus.

The corpus analyses in Sections 3.1 and 3.2 have shown that the general asymmetry in liaison-realization of [z] for AN- vs. NA-combinations in French holds, once the instances of Jeux Olympiques, Nations Unies and Etats-Unis are not considered in the quantitative analysis. For the PFC corpus, it has shown the scarce occurrences of NA- liaisons, the majority of which are found in the reading task, being restricted to a specially marked high register (cf. Table 2). In the Sapperlot corpus, where all the data stem from reading tasks, we find preferred liaison in NA-combinations only with Nations Unies and Etats-Unis and with two NA-combinations (forces alliées and actes humains) with a specific phonetic structure. This (and the arguments put forward below) is enough evidence for us to say that the liaison consonant [z] in our data in NA-combinations cannot be considered a plural exponent, as its presence is not systematically triggered by the plural morpheme, quite to the contrary (it is more frequently absent than present), but, as we will argue below, by "proper namehood" (and additionally, some specific phonetic constraints, cf. Ågren [1973: 127–129]).

In other words, we argue, based on observations made already by Ågren (1973), Durand, Laks, and Lyche (2002: 103) and others, that the liaison in Jeux Olympiques is to be treated apart, because it is far from being a case of “optional liaison”. As the results show, this kind of liaison – if we can still talk of liaison in a proper sense – is rather obligatory. The difference between Jeux Olympiques and the other three examples in Figure 9 is that we are dealing here with a proper name that has been lexicalized with the liaison consonant as [ʒɔzɔlɛ̃pik] (at least in France). Thus, this kind of “liaison” is a kind of “frozen morphology”. That is, the morpheme (here plural-[z]) on the noun has been “lexicalized” together with the adjective in this construction, and it has
lost its former function in the sense that the [z] of *jeux* has become part of a “new” lexeme and is no longer the exponent of [plural]. In Section 4 below, we will explain in greater detail our idea that *liaison* in *Jeux Olympiques* (and similar examples such as *Champs Elysées*) has to be interpreted as a kind of proper name marker.

If we assume that the [z] in *[ʒoʊzɔlɛ̃pik]* is no longer the plural exponent, this does not necessarily mean that *Jeux Olympiques* has been reanalyzed as morphologically singular. It is still possible for the whole expression to appear in a plural DP, even though we can observe a curious behavior of *Jeux Olympiques* with respect to number. As the examples in (4) below show, *Jeux Olympiques* triggers (as a general rule) plural agreement on the verb and on other DP-external elements.

(4) Plural agreement on the verb

a. *Les Jeux Olympiques sont des* 
   *compétitions athlétiques.*

   ‘The Olympic Games are athletic competitions.’

b. *Après 108 ans, les Jeux Olympiques modernes retourne aux sources.*

   ‘After 108 years, the modern Olympic Games returned to their original birthplace.’

However, *Jeux Olympiques* can be combined with the indefinite quantifier or distributive determiner *chaque* ‘each’ which due to its distributional meaning is usually incompatible with a plural noun, cf. e.g. *Chaque étudiant/*étudiants

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26 We have here a situation comparable to that of French (or Romance) adverbs in -ment as e.g. *doucement* ‘softly’, *durement* ‘heavy, hard’. Traditionally, it is assumed that these adverbs originated from a Latin construction in which the adjective agreed in gender with the feminine noun *mens/mentis* ‘mind, mood’. In the modern French examples, the feminine marker of the adjective is a vestige of internal inflection. Without entering into a diachronic discussion, it seems plausible to assume that the old agreement marker on the adjective is a piece of “frozen morphology” without any linguistic value in modern French adverbs. That is, “the feminine marker of the base adjective does not realize any feature of the morphosyntactic representation dominating the adverb nor participate in any other way in the syntax of the sentence which it is part of” (Rainer 1996: 87, for Spanish and Portuguese adverbs).
a/*ont lu un livre ‘Each student/*students has/*have read a book’. This shows that *Jeux Olympiques*, even though the plural is perceptible in the form, is conceived as one single entity on the semantic level in (5a) and (5b). In this use *Jeux Olympiques* or rather the DP where it is contained may also trigger singular agreement on the verb and the predicative adjective, cf. (5c).

(5) Combination of *Jeux Olympiques* with the distributive determiner *chaque* ‘each’

a. *A chaque jeux olympiques, la santé des athlètes représente un véritable cheval de bataille.*

‘In each Olympic Games, the health of the athletes is a real hobbyhorse / favorite topic.’


b. *Depuis, le relais et l’allumage de la flamme ont eu lieu à chaque Jeux olympiques.*

‘Afterwards, the relay and the lighting of the flame took place in each Olympic Games.’

(http://fr.wikipedia.org/wiki/Flamme_olympique – 05.03.2014)

c. *Chaque Jeux olympiques est unique.*

‘Each Olympic Games is unique.’

(http://cbcrcblog.com/olympiques/john-einarson/ – 05.03.2014)28

Interestingly there are also examples where we find a mixture of what has been said: In (6) the NA-combination combines with *chaque*, i.e. *Jeux Olympiques* behaves syntactically rather like a singular noun, whereas in the postnominal or DP-external domain we have plural agreement. More precisely, there is a

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27 Note that there are even attested examples where *chaque* is combined with singular *jeu olympique*, completely synonymous to the plural *Jeux Olympiques*, a hint at transnumerality: cf. e.g. (i)

(i) *Cinq pays – Australie, France, Grande-Bretagne, Grèce et Suisse – ont envoyé des équipes à chaque jeu olympique.*

‘Five countries – Australia, France, Great Britain, Greece and Switzerland – have send a team to each Olympic Game.’

(http://fr.wikipedia.org/wiki/Jeux_olympiques_d%27%C3%A9t%C3%A9 – 05.03.2014)

28 This example stems most probably from a francophone speaker of Canada. According to Durand, Laks, and Lyche (2002: 103) *liaison* in *Jeux Olympiques* is not generally lexicalized for speakers of Canada.
pluri-possessive pronoun *leurs* in (6a), and in (6b) the copula and the DP-external adjective appear in their plural form.

(6) “Mixed agreement” with *Jeux Olympiques*

a. A chaque *jeux olympiques* *leurs* *mascottes*.

b. C’est dur à dire, chaque *jeux* *Olympiques* sont *différents*.

Let us return now to the *liaison* facts. As mentioned above, we assume that [z] in *Jeux Olympiques* is no longer a real *liaison* consonant in a pattern of optional *liaison*. Rather, it has become an obligatory ordinary consonant which has lost its plural function. This observation is not only true for *Jeux Olympiques*, but also for other NA-combination, cf. (7).


– Proper names:

*Champs-Elysées, États-Unis d’Amérique* ‘the United Nations of America’

*Nations-Unies* ‘the United Nations’, *Pyrénées Orientales* ‘East *Pyrenees*’

– Compounds / idioms / idiomatic or frozen expressions:

*affaires étrangères* ‘foreign affairs’, *service de soins intensifs* ‘intensive care unit’, à *bras ouverts* ‘with open arms’ etc.

Interestingly, we find this “*liaison*” or rather fixed realization of a former *liaison* consonant also in singular NA-combinations. This fact is of special interest for our argument, because singular NA-combinations are usually classified as not allowing *liaison* or as a context of “forbidden *liaison*” or “erroneous *liaison*” in Modern French (cf. Encrevé 1988: 47, quoting Delattre 1966: 43). Thus, the examples in (8) show that the former “*liaison* consonant” has most probably ac-
quired a new function, as it is accepted and even categorical in a context nowadays considered to be impossible for *liaison*. Note that we have here proper names or proper-name like expressions.


- *Mount Aigu* [mɔ̃tegy] (not *[mɔ̃egy]*) (a mountain near Fontainebleau, to the south of Paris)29
- *accent aigu* [aksɔ̃tegy] (not *[aksɔ̃egy]*)

Strikingly, in his analysis of *liaison*-realization in the speech of politicians, Encrevé (1988) notes one example of “liaison erratique” ‘erroneous liaison’ in a singular NA-construction, attested though several times in the speeches and public debates of François Mitterrand: Crédit Agricole [kreditagrikol] (Encrevé 1988: 58–61), the name of an important French bank institute.

All this looks like a reanalysis of NA-*liaison* that leads to a productive pattern of proper name marking. In this context, the following metalinguistic comment from a native speaker about the example *les maladies anglaises* ‘the English diseases’ (depressions, suicidal tendencies) is especially interesting, since she states that she would realize *liaison* only if *maladies anglaises* could be used as a proper name:

 [...] je ferais la liaison s’il était avéré que certaines maladies, évoquées habituellement par périphrase, sont attribuées à tort ou à raison à l’Angleterre (maladies sexuellement transmissibles); ou encore, dans un sens ironique, pour évoquer les “maladies anglaises” comme un comportement particulier (par ex. ne pas aller au travail).

[I would make the *liaison* if it was the case that certain diseases, usually denoted by a periphrasis, are attributed, rightly or wrongly, to England (sexually transmitted diseases), or to evoke, in an ironic way, the “English diseases” as a particular way of behaving (e.g. not going to work).]

Additionally, a short experiment which we ran with three native speakers on *Jeux Asiatiques*30 (once presented as a name for a special sports event like *Jeux Olympiques*, once as a compositional DP for ‘Asian games’) showed a similar result: two native speakers would prefer *liaison* in the first and would not make

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29 We would like to thank Christoph Schwarze, Konstanz, for pointing out this example to us.
30 We would like to thank an anonymous reviewer for pointing this out to us.
it in the second case, the third avoiding *liaison* in all cases for that construction.\(^{31}\)

In view of these results, we would raise some questions as to Bybee (2005), who assumes two different lexically open constructions for French NA-combinations in the plural, one less frequent ("[NOM + z + ADJECTIF]pluriel") and one more common ("[NOM + ADJECTIF]pluriel"). We do not see any good arguments for assuming the existence of the first one as lexically open, since it occurs in our data, as Bybee (2005: 27) assumes herself, quoting Ågren (1973), only in some specific expressions, i.e. it is not a construction which can be filled freely with any material. Bybee’s explanation for the seeming variation in *liaison*-realization with postnominal adjectives in plural NA-combinations is based simply on frequency (as the vocalic onset of postnominal adjectives, necessary for a possible *liaison*, is present only in a minority of adjectives, the construction without *liaison* is naturally more frequent, and speakers tend to generalize the more frequent construction). Apart from the fact that this is not a (satisfying) explanation, but a mere restatement of the facts, it does not take into account the observed AN-NA-asymmetry (a similar frequency bias will occur for AN with vocalic onsets in Ns being less frequent than consonantal ones, but *liaison* is almost categorical here) and it does not even mention the stylistically marked character of the construction with *liaison* when occurring outside the specific expressions which lexicalized as names with the *liaison* consonant.\(^{32}\)

In the next section, we will propose a new value of the *liaison*-[z] in some NA-combinations of our corpus, as analogous to a “proper name marker”, a proposal supported by cross-linguistic evidence.

### 4 Discussion: Stylistically unmarked *liaison* in NA-combinations as “proper name marking”

The discussion about useful formal criteria for proper names and how to distinguish them from common nouns is vast. For what follows, we would like to

\(^{31}\) The examples were:

(i) *La France a gagné cinq médailles aux derniers jeux asiatiques.*
   ‘France won five medals at the last Asian games.’

(ii) *Je n’aime pas le mikado et les autres jeux asiatiques.*
   ‘I don’t like Mikado and other Asian games.’

\(^{32}\) See Bybee (2005: 28): “Toutefois, le schéma plus spécifique avec le [z] devant les adjectifs à initiale vocalique reste disponible et il est parfois utilisé.” [However, the more specific
introduce the very useful distinction made by Vandelanotte and Willemse (2002) (based on van Langendonck [1995, 1999] and taken up, e.g., by von Heusinger [2010]) between *proprial lemmata* on the one hand and *proper names* as a specific syntactic category, on the other. The former comprise lexical elements such as *Napoleon, Kafka or Maria* (for their specific, though still predicate-like semantics, see Matushansky [2008]); the latter is a syntactic category with the formal features of close apposition of its components, the absence of otherwise obligatory determiners in many languages in argument position, some specific movement features (cf. e.g. Longobardi [1994] for Romance) and transnumerality. An example to illustrate a proper name category in syntax may be the use of the lexeme *apple* in English as a proper name for girls: in a sentence like *I saw Apple Paltrow yesterday*, *apple* can be used without a determiner in object position, cannot have a plural and stands in close apposition to the surname *Paltrow*.

This distinction makes it possible to resolve many otherwise unnecessarily complicated descriptive problems, e.g. that of the “transformation” of seemingly proper names into common nouns and vice versa. Assuming that *Napoleon* is a proprial lemma which can be used either in the syntactic category proper name (cf. [9a]) or as an “unmarked N” (= common noun) (cf. [9b]) avoids a whole interpretative machinery – in the context of a quantifier, the lexical item *Napoleon* is a common N and thus not functioning as a rigid designator (cf. Kripke 1972), but denotes a class of people with *Napoleon*-like properties, just as *dogs* denotes a class of animals with *dog*-like properties.

(9)  

a. *Napoleon is an important figure in history.*    [proper name]  

b. *I have met many little Napoleons in my life.*    [common noun]

In what respect is this relevant for our corpus results? Many researchers agree about the “absence or gradual loss of internal and external (case) inflection” (cf. e.g. Leroy 2004; Nübling 2005; Fuss 2011) for proprial lemmata. Furthermore, proper names seem to have a *special morphosyntax* or generally a special formal structure in many languages (cf. the quote in [10]). On the semantic side, most researchers agree that proper names have a special semantics, by having a “naming convention” in their meaning, which conventionally links the description in the name to an extra-linguistic entity (cf. Matushansky 2008), or by being mono-referential signs, i.e. signs which do not denote a class of...


[Inner-morphological modifications which are usual for common nouns are seldom encountered with proper names [...]. This principle correlates – if there is a difference between the inflection of common nouns and proper nouns – with generally less inflectional material [...] or rather with less inflectional allomorphy.]

Thus, an oft-noted formal difference between common nouns and lexical material used as proper names, maybe becoming completely lexicalized proprial lemmata, is a stronger loss of inflectional marking than e.g. in compounds, especially for Germanic languages (see also Mayerthaler [1981: 152] claiming an iconic marking strategy here in that formal “uninflectionability” mirrors semantic opacity). Additionally, Fuss (2011) showed convincingly that names in German have a special inflectional behavior and are subject to specific morphological changes that lead, among other things, to a considerable loss of morphological case marking on them. Fuss made two claims which might be of interest for our findings, (cf. [11]): First, German roots in proper names form a particular inflectional class with regular agglutinative plural marking, blocking the still partially productive metaphonic plural marking, cf. (11a) (Nübling 2005: 35–36; Fuss 2011: 23). Second, Fuss (2011) claims a quicker and more radical loss of case morphology for roots used as proper names than for common nouns since Old High German, which results in “mono inflection”, cf. (11b) (Fuss 2011: 24–28).

(11) Two central characteristics of proper names according to Fuss (2011)

a. German proper names:

<table>
<thead>
<tr>
<th>common noun</th>
<th>proper name</th>
</tr>
</thead>
<tbody>
<tr>
<td>die Köche 'the cooks'</td>
<td>die Kochs 'the Koch family'</td>
</tr>
<tr>
<td>die Fischer 'the fishers'</td>
<td>die Fischers 'the Fischer family'</td>
</tr>
</tbody>
</table>
b. Genitive marking only once in the German DP containing a proper name:

\( \text{der Geburtstag des kleinen Kind-es} \) ‘the little child’s birthday’

*\( \text{der Geburtstag des kleinen Peter-s} \) ‘Peter’s birthday’

Research on complex proper names in Romance is almost non-existent, at least for French (with the exception of Bosredon [2011: 156]). Bosredon (2011) states an overall morphosyntactic similarity to common nouns, also with compounds and other syntagma and asserts that the semantics of common nouns used as proper names are changed by conventionalization from a purely descriptive argument to a rigid designator, without there being any change in form. Concerning family names, French has, however, a comparable reduction of inflection, in that family names do not take the graphic plural marker <s> (les Sarkozy ‘the Sarkozy family’, not *les Sarkozys), and, much more relevant to the present study, may also take different plural forms in the phonic code, cf. Les maréchaux [marejɔ] sont rares de nos jours ‘Marshals have become rare nowadays’ vs. Les Maréchal [marejal] viennent à dîner ‘The Marshal family is coming to dinner’.34

As repeatedly shown by Nübling (1998, 2005), languages seek to distinguish formally proper names (or maybe proprial lemmata, unfortunately, she does not make this distinction) from common nouns, as these two types of nominal expressions function in a different way in argument position and also on the semantic-pragmatic side. They are, however, at least at their origin, formally produced according to common grammatical regularities of the respective language, i.e. they start as regular syntactic phrases with a compositional reading (e.g. Germ. Land-Friede, ‘peace of the country’, probably ‘the one who brings peace to the country’, to monomorphematic Lem-pfert, with metaphony and resyllabification). Not every language marks proprial lemmata and proper names consistently, but many languages have the tendency to highlight “proper-namehood” also formally (cf. Nübling 2005) (this is often specific for specific groups of names, e.g. toponyms, patronyms etc., cf. Nübling [2005: 28]). Besides prosodic, graphic, phonetic and phonotactic, derivational and syntactic-contextual marking strategies (cf. Nübling [2005] for an overview; Matushansky [2008: 605–606] for English), which we cannot enumerate and illustrate here.

33 Bosredon (2011: 156) calls complex and/or compound proper names “dénominations polylexicales monoréférentielles” and states: “[...] mais il n’y a pas d’études consacrées entièrement à des noms propres composés comme Grande-Bretagne par exemple.” [...] but there aren’t any studies dedicated entirely to compound proper names such as Great Britain.

34 We are grateful to an anonymous reviewer for having pointed out this example to us.
for reasons of space, many morphophonological strategies result in a loss of morphological motivation and integrity of the original elements forming a complex proper name.

Yet, as we have seen in our corpus analysis, this statement, taken to refer to proper names, is not at first sight compatible with our findings, because highly lexicalized and even proper name-like French NA-combinations seem to show more internal (plural) inflectional marking than other NA-combinations. Even if the liaison consonant in these NA-combinations originates from a plural marking (and all the NA-combinations trigger plural agreement, i.e. are morphologically plural), semantically, the liaison consonant cannot be a plural (inflectional) marker any more in most of its corpus occurrences. More precisely, the “plural” in Nations Unies, Etats-Unis or Jeux Olympiques is not a semantic plural that is interpretable at the semantic interface of grammar, especially as there is no parallel singular NA-combination to these expressions (une nation unie ‘a united nation’ is not necessarily part of the United Nations, les Nations-Unies; only one Olympic competition is not an Olympic Game) (see Coseriu 1989: 230, going back to Jespersen 1948: 64, 69, and Vandelanotte and Willems 2002: 11–13, for the transnumeral character of proper names). Thus, while it is possible to still perceive the liaison consonant as a fossilized former plural marker in the NA-combinations at hand, lacking its semantic motivation, we think that its distribution in our data (showing up only in the NA-combinations we have found) makes it plausible to perceive it as a marker for namehood.

In order to explain (and not merely state) this fact, we can think of the following: if we assume a diachronic loss of liaison in NA-combinations, opposed to AN-combinations, the maintenance of the liaison-[z] in proper names as we have found in our corpus data looks like “frozen” morphology with a new synchronic function in these items. This would be in line with general observations by Nübling (1998) on possible markers for proper names, which may sometimes stem from older morphophonological patterns that are falling out of use.35 In this respect, we can understand then why proper name-like French NA-combinations such as Jeux Olympiques or Nations Unies still have

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35 Nübling (1998: 247): “Auf unsere Frage nach den Idealen des Eigennamens ist festzustellen, daß der Eigennamen jegliche ausdrucksseitige Distanzierung zum entsprechenden Appellativ wahrnimmt (indem er das Appellativ von sich entfernen läßt) und nicht etwa vom Prinzip des analogischen Wandels Gebrauch macht.” [Trying to answer our question concerning the ideal proper name, we can state that proper names take any formal possibility available to become distinct from the corresponding common nouns (by letting the common nouns drift away from them) and not taking part in processes of analogical change.]
the liaison-[z], which seems to be already lost in contemporary natural (informal) French.

5 Conclusion

In this paper we have shown in two corpus studies on contemporary phonetic French (the PFC and Sapperlot corpora) that the frequently observed asymmetry in realizing the liaison consonant [z] in plural AN (frequent, almost categorical) vs. NA-combinations (very infrequent) holds consistently. As neither the noun nor the adjective is regularly and uniformly marked for plural in NA-combinations, we claim that there is no productive pattern of plural marking on lexical material for postnominal adjectives and their preceding nouns in phonetic French (cf. Pomino 2012, Pomino forthcoming) and that the liaison consonant [z] in these contexts has to be interpreted differently. We have, contrary to previous studies, identified additionally significant inconsistencies for the latter group, i.e. categorical liaison in NA-combinations such as Jeux Olympiques, Nations-Unies and Etats-Unies, which all are proper names. The maintenance of this liaison, diachronically older than the modern absence of liaison in plural NA-combinations, is explained by a fixation of the whole NA-form as a proper name that has become transumeral semantically. Based on our corpus evidence, we have formulated the hypothesis that the liaison consonant in these plural NA-combinations (and maybe even in comparable singular NA-combinations such as Mont Aigu) might have been reanalyzed as a “proper name marker”. In order to test this hypothesis, psycholinguistic experiments with newly coined pseudo-proper names (e.g. Jeux Asiatiques, see our short rather impressionistic discussion on this at the end of Section 3) will have to be run systematically in order to corroborate or refute the postulated reanalysis of liaison in French NA-combinations.

References


