

## An acoustic description of prenominal *bon* in French liaison

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The identifying trait of French liaison is the appearance of the liaison consonant (LC) between one vowel-final word (Word1 or W1) and a following vowel-initial word (Word2 or W2) in various morphosyntactically-governed contexts (e.g., sequences of [Adj + Noun], etc.). However, when the final vowel of W1 is a nasal vowel, in addition to the appearance of the LC [n], a change in vowel quality from nasal to oral is commonly noted (Delattre 1947/1966; Sampson 2001). This suggests that the otherwise nasal vowel of *bon* ‘good (*m.*)’, as seen in (1a), would become indistinguishable in liaison from the feminine form of the word *bonne* ‘good (*f.*)’ (cf. (1b) and (1c), below):

- |     |    |                       |                               |
|-----|----|-----------------------|-------------------------------|
| (1) | a. | <i>un bon livre</i>   | ‘a good book’                 |
|     |    | [œ̃.bɔ̃.livr]         |                               |
|     | b. | <i>un bon ami</i>     | ‘a good friend ( <i>m.</i> )’ |
|     |    | [œ̃.bɔ̃.na.mi]        |                               |
|     | c. | <i>une bonne amie</i> | ‘a good friend ( <i>f.</i> )’ |
|     |    | [yn.bɔ̃.na.mi]        |                               |

Tranel (1990) provides syllabic evidence for a suppletive analysis of prenominal adjectives in liaison, in which the prenominal adjective *bon* ‘good’ is proposed to have two phonological forms in the lexicon for masculine singular usages, as seen in (1a) and (1b), below. Tranel characterizes the suppletive form of (1b) as being phonologically identical to the stable feminine, singular form of (1c). While Tranel’s examples are convincing, the shared pronunciation of (1b) and (1c) is presupposed, as no acoustic evidence is cited to validate these commonly-held assumptions. The present study provides acoustic data for the production of *bon* in liaison, especially compared to pre-vocalic *bonne*.

Tokens of *bon(ne)* in three different contexts (i.e., preconsonantal *bon*, prevocalic *bon* (liaison), prevocalic *bonne*, as well as non-*bon(ne)* tokens with /ɔ/ for comparison against the oral vowel in non-nasal sequences) were analyzed in the speech of 19 native speakers of Northern Metropolitan French as they performed three reading tasks. The tokens were embedded in both frequent and infrequent collocations (e.g., *bon souvenir* ‘good memory’ and *bon idéal* ‘good ideal’, respectively) as determined by the 10 billion-word *French Web Corpus* (Jakubiček, M., Kilgarriff, A., Kovář, V., Rychlý, P., & Suchomel, V., 2013). Using Praat (Boersma and Weenink, 2017) six acoustic measures that have been previously identified as good indicators of vowel nasality (i.e., A1-P0 (Chen, 1997), A3-P0 (Styler, 2015), Center of Gravity (Macmillan, Kingston, Thorburn, Dickey, and Bartels, 1999), F1 bandwidth (Delattre, 1968; Styler, 2015), F2 (Carignan, 2014), and vowel duration (Stevens et al., 1987; Delvaux et al., 2012; Styler, 2015) were taken of the vowels /ɔ̃,ɔ/ at five equidistant points across each vowel. A series of analyses (e.g., acoustic measures of *bon* tokens in liaison compared against measures of preconsonantal *bon*) for each speaker indicates that the majority of the 19 speakers produced the vowel of *bon* in liaison (1b) indistinguishably from the vowel of prevocalic *bonne* (1c), and distinctly from the vowel of pre-consonantal *bon* (1a). Speech patterns for the other speakers group into separate, but similar patterns. While it is certainly true that significant differences may exist between these vowels based on other acoustic parameters not included in this study, these six most commonly

trusted measures (which were tested on the data of each speaker and proved accurate in detecting nasal vowel quality between /ɔ̃/ and /ɔ/ in other tokens in the corpus), indicate no significant difference.

In addition to providing an acoustic description of these vowels in various phonological contexts, this work lends quantitative evidence to the suppletive theory for liaison forms. While not every case of liaison can be accounted for (nor has to be accounted for) by the suppletive theory, it does seem that the masculine *bon* in liaison shares forms with the feminine *bonne* in the speakers' lexicon.

## References

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