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**The Formation and
Evolution of the
French Nasal Vowels**



MAX NIEMEYER VERLAG TÜBINGEN

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To Jessie
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PREFACE

Among the features which set French apart from the other Romance languages, the nasal vowels play a prominent role. This study intends to describe and account for their emergence and evolution. The hypotheses advanced here as to which factors led to their formation and to the changes which affected their timbre are an attempt to integrate the linguistic data of the early literary texts and the metalinguistic statements formulated by grammarians from the sixteenth century on, with general principles of linguistic evolution and the articulatory and acoustic characteristics of vocalic nasality. In order to ensure that no hypothesis is formulated to account for the history of the French nasal vowels which would be at odds with developments having occurred elsewhere, frequent references are made to nasal vowels and their evolution in other languages and dialects. In particular, the nasal vowels of Portuguese are examined in an Appendix.

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Bernard Rochet
University of Alberta
Edmonton, June 1975.

PART ONE

THE FORMATION OF NASAL VOWELS

CHAPTER I

INTRODUCTORY: THE PROCESS OF NASALIZATION

1.1. Purpose

This study consists of two parts. The first three chapters deal with the formation of the nasal vowels, i.e., the changes that led to the utilization of vocalic nasality as a distinctive feature. The second part treats the developments that affected the nasalized vowels of the French language. This division reflects no chronological distinction, the changes affecting the subsystem of nasalized vowels having started long before their phonemicization took place.

Each part consists of an historical and critical survey of previous studies, and an attempt to account for the developments under investigation, in terms of general principles of linguistic evolution, and of the linguistic structure within which they took place. Occasional references are made to other languages which also have nasal vowels, and data concerning the Portuguese nasal vowels are presented in an appendix.

In this chapter, the general aspects of the formation of nasal vowel phonemes are examined, distinguishing between the synchronic nasalization of vowels followed by nasal consonants, and the linguistic evolution that leads to the utilization of vocalic nasality as a distinctive feature.

1.2. Nasalization as a Process of Assimilation

There is quasi-unanimous agreement concerning the process of nasalization itself. In Alfred Ewert's terms, "nasalization is the assimilation of a vowel to the following nasal consonant (*m, n, ɲ*), i.e. the uvula, which closes the nasal passage for all oral (non-nasal) sounds, is allowed to open in anticipation of the following consonant, thus giving a nasal quality to the vowel."¹

1 The French Language, 2nd ed., London 1956, p. 39. See also Edouard Bourciez. *Éléments de linguistique romane*, 5th ed. rev., Paris 1967, p. 297; Ferdinand Brunot and Charles Bruneau, *Précis de grammaire historique de la langue française*, 3th ed., Paris 1964, p. 62; Pierre Guiraud, *l'Ancien français*, 2nd ed., Paris 1965, pp. 43–44; Walter von Wartburg, *Evolution et structure de la langue française*, 8th ed., Berne 1967, p. 62.

Charles A. Ferguson, *Assumptions about Nasals: a Study in Phonological*

This view, however, has been challenged by Marguerite Durand who rejects the currently accepted opinion that nasal vowels are due to a process of assimilation of the vowel to the following nasal consonant². In order to show that, in French, there is no correlation between the amount of air escaping through the nose and phonemic nasality, she studies the amount of nasal air flow in the following examples involving the vowels [ɛ] and [ɛ̃]:

- a) between two non-nasal consonants:
des veaux vingt veaux
- b) preceded by a nasal and followed by a non-nasal consonant:
mes veaux main gauche
- c) preceded by a non-nasal and followed by a nasal consonant:
des noms vingt noms
- d) between two nasal consonants:
mais non main morte

She thus observes that only *des vœux* does not show any passage of air through the nasal cavity; in all the other cases, the same amount of air escapes through the nose. She also mentions that, in some of Chlumsky's radiographs, some oral vowels in non-nasal environments are seen to be articulated with a space of ten mm. separating the velum from the pharynx³. She concludes that passage of air through the nose is necessary but not sufficient for the production of nasal vowels.

Universals, *Universals of Language*, 2nd ed., ed. Joseph H. Greenberg, Cambridge, Mass. 1968, p. 55, presents a set of statements which "are generally explained in all-or-none terms, although most are probably only statistically valid; that is the probability of 'exceptions' is very low, and a language showing an exception may be regarded in some sense as abnormal or pathological." He considers that nasal vowels, "apart from borrowing and analogical formations, always result from the loss of a PNC [primary nasal consonant]. . . One case where an NV [nasal vowel] may be of quite different origin is in Iroquoian, where one of the NV's posited for the proto-language seems, on consideration of internal reconstruction, to have derived from earlier /a/+i/ or a sequence like /awa/" (p. 59).

There are cases of assimilation of the vowel to the preceding nasal consonant; e.g., in Portuguese, *mãe* 'mother'; see Georges Straka, *Remarques sur les voyelles nasales, leur origine et leur évolution en Français*, *Revue de Linguistique Romane* 19 (1955), p. 269. Straka points out that most Portuguese and all French and Slavonic nasal vowels, however, are due to the influence of a following nasal consonant (to "anticipation" rather than "lag" assimilation) (pp. 269–270).

- 2 De la formation des voyelles nasales, *Studia Linguistica* 7 (1953), 33–53 (henceforth: De la Formation).
- 3 Chlumsky's observation shows only that, although articulatory phonetics describes the optimal movements of the vocal apparatus for the emission of speech sounds, the same acoustic effect can be the result of different articulations. For Chlumsky's radiographs, see J. Chlumsky, *Radiografie Francouzských samohlásek a polosamohlásek*, Prague 1938, in particular fig. 132 (reference given by Durand, *op. cit.*, p. 34).